21.2.3 (2024/02/05)

Bug fixes
17147 Saving valid project files can sometimes fail

21.2.3 RC 3 (2024/01/29)

Bug fixes
(common)
17137 Crash when playback loops while recording audio to the playlist
-
17138 Patcher: freeze when selecting presets for a plugin

21.2.3 RC 2 (2024/01/24)

Changes
FL Studio Mobile updated to v4.4.8 (https://support.image-line.com/redirect/flstudiomobile_changelog)

Bug fixes
(common)
12382 A black rectangle is visible while cloning tracks
16908 Audio clips for extracted stems don't have the correct length
17019 Audio recording can create empty undo entries if no mixer track is armed
17027 Automation channel: convert to event button removes all other events in the current pattern
16980 Browser search in the selected folder doesn't work properly when showing columns
17093 Browser stops showing search results when dropping a sample on a playlist track header
16862 Can't paste audio from the clipboard in the window of an empty channel
16986 "Convert target to events in the current pattern" doesn't work for 3rd party plugin parameters
16962 Crash in the in-app shop
16979 Crash when loading a project and searching in the browser when showing columns
17032 Crash when previewing in the browser
17103 Crash when recording audio clips into the playlist
17060 Crash when recording two channels with identical names
16983 Crash when the mastering window is opened
16008 "Cut self" in channel settings doesn't work when notes are triggered on a parent layer channel
17043 Empty window when the internet connection is lost during mastering
12251 No * in front of preset names when changing a control after the plugin window is hidden
16899 Notes copied from one channel to another are affected by the piano roll of the wrong channel
17018 No undo for changing color of audio and automation clip channels in the picker panel
16842 No undo for the "Open in (new) audio editor" and "One-click audio recording" toolbar buttons
16884 Pasting clipboard audio into sampler channels doesn't work when there's a project folder
17044 Patcherizing a MIDI Out instrument track's channel adds many invalid undo entries
16975 Patterns inserted before another are 1 tick long when added to the playlist
16895 Pressing Alt+F8 in the browser doesn't work when the Sounds tab is open
17024 Project data folder in the browser doesn't work after a project is renamed
16989 Replacing a MIDI Out instrument track doesn't assign a mixer track
16970 Replacing the generator for a MIDI Out instrument track adds invalid undo entries
16930 Resaving a zipped project as a new zipped project shows the "multiple samples" warning
11723 Shift + Left or Right arrow doesn't move clips and notes enough across time signature changes
17064 Tempo automation will trigger errors in the Sounds panel
16976 The audio clip menu doesn't show when the slice tool is selected
16900 The color and icon of folders revert to their defaults when searching in the browser
16849 The first track of a format 1 MIDI file can't be imported
16850 The MIDI import window isn't shown when holding Alt while clicking on File > Import > MIDI file
16892 The preview panel in the browser is still visible when no item is selected
17030 Tools > Sounds does nothing when the browser is hidden
13175 Undo of deleting a layer channel's child channels doesn't add them back

16839 Uploading rendered files to SoundCloud fails when the title is empty
16996 When a project is saved to a drive with low free space, some data is lost
-
16972 Drumaxx: crash when undoing the renaming of a pad
17001 FLEX: packs downloaded through the FL Studio browser aren't updated
17016 FLEX: some presets don't load all their samples
16870 FPC: crash when the import of a monolithic-mode DirectWave preset is canceled
16867 FPC: freeze when importing monolithic-mode DirectWave presets
16903 Love Philter: some envelope points move more than they should when multiple points are selected
17013 Maximus: linear mode and oversampling can change the cut frequencies
17014 Maximus: slopes wont work while linear phase is enabled
10192 Maxx plugins do not pass key press while detached
13803 Maxx plugins don't close the Preset window after selecting preset
15702 Maxx plugins don't show custom presets and folders in the user data folder
16595 Morphine: Vorbis compressed WAV, WavPack, Ogg and FLAC files aren't opened
15359 Patcher: From and To nodes reset to their default positions after reopening the plugin window
12364 Patcher: native generator plugins show an audio input node when they don't have any audio inputs
17098 Sawer: clicks when limiting polyphony
17099 Sakura: overlapping notes are not always stopped
17010 Sytrus: crash when the main tab is selected after locking harmonics on another tab
8925 Wrapper: the song position reported to plugins is not updated while playing if the latency changes
17047 Wrapper: crash when opening a project with a bridged plugin
16922 + 16929 Wrapper: time signature information is incorrect for VST, VST3 and AU plugins
16960 ZGE Visualizer: crash when removing items in an image list
17086 ZGE Visualizer: crash when using "Enable Internal controllers"

(macOS)
16978 The current sample file isn't highlighted in Finder when loading a new sample

21.2.2 (2023/12/01)

Bug fixes
(common)
16887 The browser Sounds tab is not themed correctly if it's not open when changing themes

(macOS)
16891 Crash when deleting samples from picker panel

21.2.2 RC4 (2023/11/29)

Bug fixes
(common)
16876 Sample preview in the browser can't be restarted from mouse position
-
16871 ZGE Visualizer: freeze when using "Add URL"

21.2.2 RC3 (2023/11/27)

Bug fixes
(common)
16857 Crash when searching in the browser
16858 Crash when recording to a file in folder with a very long name

16859 Mastering doesn't replace existing files
16851 Notes are pasted at the previous song position after using the Home key
16861 Preview of samples in the browser lags
16732 The favorite plugin menus aren't updated when Plugin Manager closes

(macOS)
16852 Antares Auto-Key 2 VST3 crashes when opened

21.2.2 RC2 (2023/11/24)

Changes
16782 FLEX: samples are now loaded much faster
-
FL Studio Mobile updated to v4.4.3 (https://support.image-line.com/redirect/flstudiomobile_changelog)

Bug fixes
(common)
16819 Adding a mixer track separator doesn't add an undo entry for it
16824 Browser cache is updated too often
16835 Can't search for samples recently downloaded from FL Cloud
16803 Changing precomputed FX parameters shows a "Loading" hint
9989 Crash when parsing text strings
16843 Crash when loading a project containing the latest version of Rob Papen Quad VST3
16814 Crash when opening the More plugin window
16820 Crash when searching for samples in the browser
16766 Crash when selecting a channel
16072 Dropping a preset file on the browser's Plugin Database tab switches to the ALL tab
16823 Dropping channel presets on FL Studio's background changes the default project path
16800 Loading a sample on a playlist track while holding SHIFT shows the channel settings window
16848 Mastering doesn't work when the filename contains an invalid character
16713 No undo for imported MIDI data when dropping MIDI files on the channel rack
16739 Opening a project with a replaced sampler channel shows the missing samples window
16834 Redoing adding an audio track doesn't restore the track name
16695 Uploading to Soundcloud after an export doesn't work
16831 Temporary file is not removed after dragging a file from FL Cloud
-
16808 Directwave: mouse cursor selects zones when the mouse button is up after opening a soundfont file
16809 ZGE Visualizer: error loading ZgeNano
16825 ZGE Visualizer: webcam support doesn't work

(macOS)
16807 Idle event is not sent to plugins
16840 Saving a mixer preset doesn't automatically add the .fst file extension

21.2.2 RC1 (2023/11/16)

Changes
16791 Piano roll scripting: added the form.SetText method
-
FL Studio Mobile updated to v4.4 (https://support.image-line.com/redirect/flstudiomobile_changelog)

Bug fixes
(common)
16802 Audio clips downloading from FL Sounds don't always work with project folders
16704 Canceling a drop operation from Windows Explorer can close the focused window
16797 "Cannot focus a disabled or invisible window" error when closing FL Studio

16794 Changes to the search path list in File settings are not saved
16793 Clicking on an empty pattern's clip doesn't select it in the Picker Panel if it wasn't shown yet
16746 Clicking on a pattern clip doesn't select it in the Picker Panel
16767 Clicking the Locate button for optional features opens the browser
12108 Crash when sending a sysex message from a VST plugin to the host
16719 Crash when FL Studio is closed while playing
16757 Crash when reading the browser cache
16779 Crash when the mastering window is closed during rendering
16788 Crash when the MIDI import window is canceled
16738 Cycling through mastered audio variations doesn't work when only reference B was selected
16795 Empty search paths in File settings are saved in the browser cache
16741 Image related error messages are shown from random threads
16758 Notes are pasted at the previous song position after using Ctrl+Enter
16751 Overwriting plugin presets creates preset backups in the project's backup folder
16742 Pressing F1 in the mastering window opens the wrong help page
16783 Saving the browser's cache on exit slows down closing the program
16714 The channel rack filter for audio clip changes when its sample is removed
16754 The loudness preset for mastering is not saved
16696 The name and color of a playlist track are inconsistent when when selecting an audio track
16763 The Skip button on the save project window isn't always shown
16772 The Sounds tab's content doesn't show when FL Studio opens with the browser hidden
16760 The unused content window is sometimes shown for samples used in the project
16744 Using "Render minimized" after editing SoundCloud connection properties minimizes the program
16740 Visual glitches in the playlist when recording audio if there are no empty mixer tracks
-
16806 Diagnostic: report shows "No diagnostics info"
15352 Drumaxx: pad rename popup won't appear
16770 FLEX: error selecting presets from the Free and Store tabs
16769 FLEX: presets are shown on the Free tab when there are no packs in it
16534 GMS: It's not possible to select AMP Decay from the dropdown menus as a destinations
16745 Harmor: graphical glitch at 150% scaling
16755 Plugin manager: buttons in the plugin info tab are hidden when the is not high enough
11471 Sawer: velocity mappings in the matrix are still remembered after the plugin is reset
16547 Sawer: graphical issue after clicking on options button
16798 Transistor Bass: Gate length doesn't have a popup menu
12025 Wave Traveller: envelopes are scrambled after one note is copied to another note
16756 Wave Traveller: the piano keyboard is not shown correctly when scaling is not 100%
-
16777 Piano roll scripting: pressing Return doesn't accept changes on the window

(macOS)
16761 All mixer channels or playlist clips are selected when using Cmd+Tab
16683 Browser panel isn't displayed correctly when it's toggled with FL Sounds tab active
16775 Settings for some windows are not stored when they're closed
16729 The export window does not use the project name and instead always shows "untitled"
-
16762 Parametric EQ 2: crash when resizing the window

21.2.1 (2023/11/06)

Changes
16706 Show more playlist actions in the menus on the Sounds tab

Bug fixes
(common)
16710 Crash: "Cannot focus a disabled or invisible window"
16705 Clicking "Create account" in the mastering window doesn't open the browser window
16698 Crash on redo of dropping a single track MIDI file on the channel rack

16697 Crash when the Sounds tab in the browser is opened
16263 Importing a MIDI file doesn't create an undo item for all new channels
16700 Library tab doesn't show any content
16690 The icons of the default browser tabs can be changed
-
16699 Diagnostic: unicode characters aren't stored correctly in the report
-
16709 Piano roll scripting: deleteNote can cause a crash
16691 Piano roll scripting: onPlaybackProgress is called when the Sounds tab reloads

16723 Toxic Biohazard MIDI modulations look empty
16726 Crash when removing extra folder
16686 Clicking on a pattern changes the selected channel in the channel rack
16725 Mastering dialog freeze
9087 Portable Network Graphic error
16720 Crash in mastering
16733 Replacing a sampler channel with a generator shows the missing sample dialog after reload
16727 Lossy merged automation will be grouped, which makes it hard to cut and move afterward
16718 Extracted stems audio clip fade handles are forced to non-manual
16716 FL Studio tells user downloads are busy while no downloads are active

(macOS)
16692 Browser becomes focused when a modal window is open
16703 Sounds tab is visible inside the Plugins tab

16715 Video files grayed out in file open dialogs
16749 Operation not permitted on mac when browser customization file is not accessible
16734 Exception 'File not found' or 'Access denied' pops and FL Studio disappears

21.2 (2023/10/24)

Bug fixes
16681 Background image can't be changed after loading some themes
16677 Crash when mastering is canceled
16667 Dragging a sample to the playlist shows a message in trial mode
16664 Graphical glitch in the Create DirectWave Instrument window
16496 The mastering window isn't themed completely
16668 The minimum width of the Sounds tab is not correct after installation
-
16670 Morphine crashes when Release loop mode on

(macOS)
16666 The Sounds tab shows a white background
-
16661 Kepler: crash in the engine while running the "Open all plugins test" in Rosetta mode

21.2 RC3 (2023/10/20)

Changes
7796 Middle-click on the render button in the toolbar starts an export to a MIDI file
16564 Show a warning if the chosen destination file for mastering already exists

Bug fixes
(common)
16663 Channel states don't preview the sample's sound in the browser
16641 Crash when running the fade tests
16656 Crash while downloading content updates

16647 Downloads from the Sounds tab never finish
16640 Dragging patterns from the picker panel to the playlist loads them as an audio clip
16652 Dropping clips sequentially onto the playlist may group them in error
16481 Incorrect scale marker text
16654 Preview of mastering results sounds incorrect because it passes through the mixer
16648 The toolbar's peak meter color changes when waveform colors are changed for the default theme
16634 Theme brightness value changes a little bit whenever the theme is saved
16639 The piano roll is no longer in front and focused after cloning a pattern
16642 The theme editor's wave preview doesn't update when switching themes
16649 Vocal stem is missing from picker panel after stem separation
-
11258 Newtone: note positions are different after loading a project if snap to scale is enabled

(macOS)
16646 Program doesn't start with a Fruity Fire Edition license (Intel/Rosetta)

21.2 RC2 (2023/10/16)

Changes
16637 Added a "Distribution" item to the Tools menu
-
16619 DirectWave: improve the message shown when the content library folder can't be created
-
16635 Piano roll scripting: added getTimelineSelection() function

Bug fixes
(common)
16626 Crash after the Sounds tab is hidden
16633 Crash when the stem separation module does not load
16631 Downloads don't show the default image when the downloaded item doesn't have its own image
16624 MIDI import window is shown when dropping a file with a single track on the channel rack
16632 No undo when selecting presets from a plugin's preset menu
16615 "Delete space" in the playlist doesn't work properly with hidden collapsed tracks
16627 Undo and Redo don't work after undoing the addition of multiple instances of an audio clip
-
16621 Kepler: visual glitches on octave switch
16630 Morphine: the PWM mode parameter isn't saved correctly when set to +
16629 Vintage Phaser: new parameters aren't set to default when loading an old preset

21.2 RC1 (2023/10/11)

Changes
16578 Added a button to redownload all optional features
16457 Added an option to create automation clips at the playback position or not
15619 Fruity edition now has support for up to 8 audio clips
16553 Middle-click the "Add instrument track" button in the playlist to show the More plugins window
16568 Show a message when trying to download content if there's no internet connection
16590 Show a warning when rendering a project with the Master mixer track muted
16450 Show ghost clips in the playlist for samples dropped from the Sounds tab
16562 Use Alt + double-click (was Shift) on a pattern clip to show the channel rack and not the piano roll
-
FL Studio Mobile updated to v4.3.19 (https://support.image-line.com/redirect/flstudiomobile_changelog)
-

16585 Piano roll scripting: added clone() method to note
16582 Piano roll scripting: added deleteMarker(i) method to score
16581 Piano roll scripting: added deleteNote(i) method to score

Bug fixes
(common)
16599 Can't automatically renew the license when updating to a new minor version
16600 Crash logs are saved with 16-bit chars without a file header
16580 Crash on undo after opening a new channel from a sampler window
16574 Crash on undo after opening a new channel in browser
16591 Crash when changing the "When done" action after stem separation
16445 Crash when processing an envelope
16537 Dropping multiple audio or instrument tracks opens all the clip channels
16549 Dropping new samples onto the playlist resets the "copy used samples" project setting
16555 Extracting stems shows an error when a data file isn't found
16542 Images for items active downloads don't show
16548 Lists in message windows aren't always aligned correctly
16572 Mastering can be started while recording
16552 Middle-click on the channel rack + button adds an instrument track
16609 No undo when adding audio clips to the picker panel
16596 Patcherizing 3rd party effects sets the effect slot name to "Fruity Wrapper"
16602 Playlist tracks can be exported while recording
16573 Port is not automatically assigned for IL Remote devices
16463 Sample preview in the browser sometimes plays from the start instead of the chosen position
16545 Send to playlist from Edison does not work
16563 Separated stems are not deleted when the project is closed if they've been previewed
16565 Stem separation doesn't work on very short samples
16603 Stem separation starts even when no stems are selected
16532 Windows that are detached and reattached are not in the same position
-
16533 Morphine: import breakpoint/waveshape doesn't work
16556 ZGE Visualizer: video preloading am .MKV file doesn't work if "Sync video" is enabled
16544 ZGE Visualizer: video preloading settings are not stored for each instance of the plugin
-
16593 Piano roll scripting: the script window is not themed

(macOS)
10622 Search in the open file window doesn't show .flp files
16546 Some AU plugins don't show up in Plugin Manager when scanned
16479 The first plugin in in the plugin database's Generators folder doesn't load

21.2 beta 3 (2023/09/27)

Changes
16442 Added menu items for FL Cloud functionality to the Tools menu
16448 Added "Show in FL Studio Browser" menu for downloaded samples inside the Sounds tab
16491 "Copy used samples to the project folder" is now stored with projects instead of a global option
16478 Mastering options are now remembered
15184 Show the channel rack instead of the piano roll on double-click on a pattern clip while holding Shift
16525 Open "More plugins" by middle-clicking on the + channel button and the effect slot arrow button
16530 The download size for items in the Library tab is now shown as a hint
16190 The volume of new layer channels is now set to 100%
-
FL Studio Mobile updated to v4.3.16 (https://support.image-line.com/redirect/flstudiomobile_changelog)
16210 ZGE Visualizer: the ImageMashup effect can now support up to 20 image sources
16388 ZGE Visualizer: the preview window can now stay open even if the plugin editor is closed

16473 Kepler: added "Chorus noise" and "Chorus noise gate" to the options menu

Bug fixes
(common)
16493 Batch rendering doesn't work when a project misses some samples
16527 Browser doesn't close when the Sounds tab is open
16455 Channels created by stem separation don't use the same mixer track as the original
16414 Cloning a layer in pattern loop mode crashes during playback
16483 Crash opening the Theme settings window when the waveform color file doesn't exist
16465 Crash when moving the Theme settings window past the edges of the screen
16512 Crash when right-clicking outside of the stem separation window
16509 Detached plugins show up during mastering
16456 Don't show a percentage when separating stems
16452 Exception when downloading samples with ':' in category name from the Sounds tab
16302 Exported AIFF files have no loop points
16470 "Extract stems from sample" does not use reverse setting (and other precomputed effects)
16507 "Extract stems from sample" sometimes crashes when it's done
16409 Mixer track headers are invisible with white themes
10965 Plugin Manager selects multiple plugins as favorite when they have the same name
16415 Presets aren't displayed correctly in the plugin window title bar if the name contains the & character
16283 Saving zipped projects shows warnings about non-unique identical file names
16498 The list view used by the message dialog isn't themed
16497 The merge arrangement window isn't themed
16459 The new pattern doesn't get selected when cloning a pattern while the picker panel is hidden
16508 The playlist scrolls to the end after adding a new clip at the playback cursor
16519 The stem separation window doesn't always open on the correct screen
16495 The stem separation window isn't themed
16484 The mixer track in the channel window is incorrect when changing audio track routing in the playlist
16437 Tracks can't be unrouted from the master by clicking the routing arrow
16476 Undoing "Extract stems from sample" doesn't remove the audio clip channels
-
16514 3xOsc: crash after patcherizing when the channel uses a sample from the FL Studio folder
16393 Edison: can't set the Filename property of the sample to a name that contains a period
16385 FLEX: playing the same note multiple times uses the last note's velocity for all active voices
16485 Kepler: Chorus mode is not automatable
16464 Kepler: the Set menu is displayed for all controls
16462 Kepler: no audio output on the right channel when the plugin is used in Patcher
16435 ZGE Visualizer: export of project freeze at the start
-
16449 Piano roll scripting: text input boxes don't store their value between sessions
16474 Piano roll scripting: using piano roll keyboard shortcuts conflicts with typing input in edit fields

(macOS)
11507 Audible crackles when opening and closing the piano roll window
16526 "Extract stems from sample" doesn't work in macOS 10.13 (High Sierra)
-
16480 Morphine: random crashes when switching presets or loading a project
-
16451 Piano roll scripting: can't set the name of a marker

21.2 beta 2 (2023/09/15)

Changes
16317 Added a menu item to downloaded content in the browser to show its pack in the Sounds panel
16005 Added an option to change how the paint tool in the piano roll works when holding the Shift key
16279 Added context aware support for the buffer length control in audio settings
15981 Added mouse scrolling speed sliders to the Input section of General settings
15649 Added stem separation for audio clips in the playlist

14348 Merged the help and tools buttons for MIDI controllers
16314 Muted audio clips don't show colorful waveforms now
16143 New automation clips are now added at the position of the playback cursor
16205 Pressing the return key in the new Save As window will save the project
16392 Project items in the browser now have a "project" tag
11490 Renamed "background rendering" in the render window to "minimize when rendering"
16148 Samples that weren't found when a project is loaded are now remembered after saving
3921 Scale highlighting is now saved per project
16290 Show some FL CLOUD Sounds results in a panel when searching in the browser
16330 The message that asks to delete recorded files when a project is closed can now be hidden
16181 Warnings that can be hidden are now categorized in General settings
15816 Wave colors can now be themed in the theme editor
-
15786 NEW synth plugin: Kepler
16364 Slicex: new markers are now added at the playback position
16145 Vintage Phaser: added "Drive" and "Inv FB" controls
-
16359 MIDI scripting: added a "value" parameter for channels.soloChannel
16358 MIDI scripting: scripts can now solo track groups in the playlist

Bug fixes
16408 Color selectors in Themes settings don't always open on the correct screen
16280 Dropping files on an audio track in the playlist doesn't assign the track to all created channels
16318 Browser has the wrong size when auto-hide is on and the Sounds tab is selected
16327 Crash when hiding the Sounds tab in the browser while a sample is playing
16347 Crash when the Sounds tab is hidden and the browser is refreshed
16339 Empty channel filters aren't deleted when undoing inserted channels
16381 Loading a broken audio file with a project will show multiple "Find missing samples" messages
16368 Moving a selection of mixer tracks also includes the active track when it's not selected
16142 No undo for dropped effect plugins on channels in the channel rack
16399 Playlist scroll and zoom settings can change when switching arrangements
16398 Playlist scroll positions aren't always restored correctly when switching arrangements
16252 Previewing loops in the browser syncs to tempo when the program isn't playing
16376 Project names that contain only spaces aren't shown in the hint panel while loading
16232 Replacing a sample in sampler channels starts a file search when it shouldn't
16294 Resetting a track to default creates a project backup
16079 Selecting a pattern in the picker panel doesn't select a channel for that pattern in the channel rack
16045 Setting favorite plugins in Plugin Manager is slow and constantly updates the browser
16382 Shift + scroll wheel in the mixer only moves one track when multiple tracks are selected
16387 The current mixer track is not reset to "Master" when starting a new project
16391 The filename for armed mixer tracks isn't reset when opening a different project
12791 The filter group of audio clip channels resets when the sample is replaced
16386 The Sounds tab isn't shown when clicking on "Show more results" in browser search results
16379 The Sounds tab steals space bar pressed from the program
16264 The "Start new project" option is on by default when dropping a MIDI file on the channel rack
16369 The time multiplier resets for channels that were created by Make unique
-
16375 Harmor: crash when opening a project
16402 Sawer: high CPU usage when pressing repeated notes
-
16371 Edison scripting: crash when trying to run a script file that no longer exists
16366 Piano roll scripting: checkbox looks strange at some scaling settings
16390 Piano roll scripting: ScriptDialog.Execute() returns True when the dialog was canceled
16396 Piano Roll scripting: script is not applied when ShowMessage is used in the apply function

(macOS)
16289 Crashes aren't handled correctly in some cases
16397 The mixer window is not rescaled correctly when it's moved to a secondary screen in macOS 10.15
16293 The offline page for FL Cloud Sounds isn't shown

21.2 beta 1 (2023/08/18)

Changes
15173 Added FL Sounds to the browser
16203 Added a "don't show this in the future" option when dropping presets on multiple mixer tracks
15264 Improved voice processing
16087 Open the piano roll Tools menu when clicking on the "looking glass" for downloaded scripts
16088 Use same Icon for Diagnostic and Control Creator on macOS & Windows

Bug fixes
16258 Audio from audio clips cuts out when removing clips from playlist
16176 Legato tool doesn't work on very short note gaps
16182 Retriggering sample preview in the browser causes clicks
14299 "Route selected channel" in the mixer doesn't work if the channel isn't in the selected filter group
16023 Scripts aren't re-downloaded when the files were removed
16163 The channel rack hides instead of focusing when it's detached
16130 Undo of deleting a layer channel creates new channels
-
16127 Pitch shifter: automating the Formant or Duration controls shows changes above the wrong control

21.1.1 (2023/08/29)

Changes
16363 Don't automatically set the "Show info on opening" option when editing project info

Bug fixes
16355 Canceling the warning about plugins with large data will still save the project
16354 Can't change a pattern name to an empty string
16334 Search text in the plugin picker isn't shown completely
16323 The 5th line of the browser search path list is always selected when opening File settings
16344 The browser shows multiple identical search results
16343 The channel arpeggiator jitters
-
16337 Fruity LSD: crash when opened in Windows on ARM
16357 Maxx plugins: maximum polyphony is too high
16307 Sawer: cpu usage is too high
16365 Soundgoodizer: crash when audio input contains NaN values
-
16360 MIDI scripting: playlist.muteTrack's value parameter is ordered incorrectly
16356 Edison scripting: InsertSilence always inserts silence before last sample

(macOS)
16158 Browser sample preview refreshes randomly when dragging samples to channel rack

21.1.1 RC1 (2023/08/23)

Changes
FL Studio Mobile updated to v4.3.16 (https://support.image-line.com/redirect/flstudiomobile_changelog)

Bug fixes
16286 Browser doesn't show when it's auto hidden and "Browse parameters" is used for a plugin

16239 Can't color a pattern without renaming it
16287 Can't set the pattern name to anything that contains a # character
16278 Crash on undo after canceling the "Import MIDI data" window
16284 Crash when creating an automation clip while the playlist is not visible
16018 Crash when dropping an audio sample on an audio track header
16223 Crash when pressing Ctrl + Shift + down arrow in the picker panel
16209 Crash when previewing a PNG file with a JPG file extension
16275 Crash when the browser saves its settings
16011 Crash when using the graph editor after a channel was deleted
16246 Dragging playhead where there is a fade on an audio clip can cause loud clicks
16295 Fade-outs sometimes click at the start
16322 Key markers don't show the correct root note when the scale is changed
16285 MIDI devices can't pause playback
16225 Moving a pattern in the Picker Panel doesn't always work
16311 Newly added key markers don't snap to the grid
16256 Only the current pattern is updated in the browser when working with multiple patterns
15913 Paste at cursor in the playlist doesn't work when the position was changed with keyboard shortcuts
16253 Pattern colors aren't always updated correctly in the browser
16321 Playlist zoom levels don't work correctly for all scaling levels when reopening projects
16156 Recording options window is shown twice when recording is started during playback
16217 Running tests changes the last used project path
16138 Sample preview playback position in the browser is not in sync with other audio
15973 Short freeze when changing the theme
16224 The last used folder is not correct after canceling the Open window
16226 The channel rack's loop button doesn't reset when opening a new project
16303 Version information in the preview panel in the browser is not shown correctly
16164 Warning for the Fruity Fire edition is not themed correctly
-
16236 Drumaxx is pitched up
16249 Drumpad is pitched up
16305 FL Studio VSTi: host can freeze when an error is shown after MIDI devices change
7873 FL Studio VSTi and AU: latency changes aren't reported to the host
16288 Granulizer: possible crash when adding samples with a long path
16257 Hardcore: control values are shown incorrectly
16215 HTML Notebook: crash when the plugin is removed or replaced
16262 Maximus: the selected view (Bands or Monitor) is not stored in presets
16254 MiniSynth: channel volume doesn't change the plugin's volume
16250 MiniSynth: piano roll slides don't work
16238 Morphine: saved preset files don't have a file extension
16200 X-Y-Z Controller: keyboard shortcuts don't work on the input and output mapping envelopes
-
16152 MIDI scripting: plugins.getPadInfo reports the wrong number of pads for FPC
16213 Piano roll scripting: can't set the last bit of Marker.scale_helper
16247 Piano roll scripting: hitting accept runs the script again with different output
16185 Piano roll and Edison script windows have some graphical issues

(macOS)
16300 Can't right-click by holding Ctrl while left-clicking in the channel rack
16214 Detached windows are behind the main window
16166 The locate button in the browser's Library tab doesn't work for samples and loops
16267 The program won't start
-
16159 Diagnostic: reports aren't saved to the desktop
15760 FL Studio AU: the editor window is not scaled correctly

(Windows)
16260 Edison: the declicker doesn't work anymore

21.1 (2023/08/04)

Bug fixes
(common)
16197 Colorful waves take a long time to appear for long samples
16191 New devices aren't added to the external sync list when refreshing MIDI devices
15997 The audio device list is not updated after a USB device is attached to the computer
-
16204 Luxeverb: the hint for the Feedback control is wrong

(macOS)
16172 Graphical glitches in the piano roll when moving the channel rack over it
16201 Empty window shows up when loading FL Studio as a plugin inside FL Studio

(Windows)
16178 Morphine: sample import fails when the filename contains unicode characters

21.1 RC4 (2023/08/01)

Bug fixes
(common)
16179 Browser doesn't show user folders when they contains commas
16162 Changing a channel's mixer track causes audio crackles
16171 "Compact" zoom for a tab in the browser affects the way images are shown in the news panel
16157 Dropping a sample on an audio clip creates a new audio clip channel that replaces the old one
16153 Opening a project shows an "invalid data" error
-
16180 Edison: waveform colors are not correct during recording
16160 FLEX: crash to desktop after loading a pack through the browser

(macOS)
16161 Crash when all items are unchecked in the STARRED tab of the Browser panel
16155 The editor window of FL Studio as an AudioUnit plugin doesn't scale correctly

(Windows)
16177 No icon shown for FL Studio when using Alt+Tab

21.1 RC3 (2023/07/28)

Features
16084 Added a new "Behind clips" option that works like "Solid" but looks better with colorful waveforms

Bug fixes
(common)
16122 Crash when pressing Ctrl+Shift + up or down in a plugin
16126 Crash when recording audio without any armed mixer tracks if a track is armed afterwards
16137 Crash when trying to save the browser settings
16091 Crash when undoing after using Riff Machine from the Tools menu
16098 Graph editor window closes automatically when trying to edit a value on any tab
16104 High cpu usage in Windows Task Manager when FL is playing
16096 Loading a mixer track preset resets the recording location and input monitoring options
16113 Open and Save windows show on the wrong screen when using detached plugins
16094 Sometimes the wrong help page is shown for the automation clip channel window
16114 The metronome isn't properly latency compensated
16105 The "Muted" option in playlist clip menus doesn't create an undo entry
16103 The warning shown when dropping multiple plugins on a mixer track is shown too often

16112 Undo of loading a sample on a layer channel will create new channels
-
16099 Edison: the 'Clean Tool' doesn't remember the enabled options
16124 FPC: crash when saving entire kit as pad preset if there's an illegal character in a pad name
16100 GMS: the EQ tab doesn't show when the control to display it is clicked
16106 Notebook: copy and paste doesn't work when the plugin is detached

(macOS)
16097 The + button in the Channel Rack automatically adds the plugin that the mouse cursor is over

21.1 RC2 (2023/07/20)

Changes
16047 Added a test to check if all expected plugins have been installed
16081 Included the type of file in the warning message when loading a file saved in a newer version
16080 Reorganized the playlist clip menu so items are more clearly grouped

Bug fixes
(common)
16059 An empty tag is added in the browser when a comma is used
15953 Automatic crossfades don't work after slicing a clip
16057 Browser window opens at startup when it's detached and set to hide automatically
16073 Channel name isn't restored when redoing the replacement of an instrument track's plugin
15735 Crash when opening a project
16038 Patterns are in the wrong position after undo
16044 The category name in the plugin picker is shown when the 'All' category isn't selected
15444 Channel audio is distorted after undo
-
16041 DirectWave: right-click menu in the folder's section doesn't work when preview is off
16065 DirectWave: saving with the "monolithic FLAC" option creates gaps at the start of samples
16050 Distructor: peak meter uses a lot of CPU
16051 VFX Sequencer: the detected chord text is not completely visible
6990 Vocodex: crashes when changing modulator pitch
-
16066 Piano roll scripting: can't type values into an edit that has a minimum and maximum value
16069 Piano roll scripting: script shows infinite messages when preview is on and a checkbox is changed

(macOS)
12173 The Shift, Ctrl and Alt toolbar buttons don't work as modifier keys

21.1 RC1 (2023/07/13)

Changes
15850 Added an option to show detached plugins on the same screen as the main window
6642 Automatically ungroup a clip after it's been sliced
15949 Playlist clips can now also be muted or unmuted from their popup menu
-
15928 Delay Bank: added context aware type-in value support
15615 Diagnostic: removed render tests
16029 DirectWave: scripting menu is visible
15946 EQUO: add context aware type-in value support
15958 Convolver: add context aware type-in value support
FL Studio Mobile updated to v4.3.13 (https://support.image-line.com/redirect/flstudiomobile_changelog)
16036 Formula Controller: added context aware type-in value support
16026 Gross Beat: added context aware type-in value support

15897 Limiter: added context aware type-in value support
15930 Love Philter: added context aware type-in value support
15896 Maximus: added context aware type-in value support
15964 Multiband Compressor: added context aware type-in value support
15931 Notebook 2: added context aware type-in value support
15970 Peak Controller: add context aware type-in value support
15912 Reeverb 2: added context aware type-in value support
15968 Slicer: make the top wave display resizable
15980 Slicer: improved visibility of the selected slice
16010 Scratcher: added context aware type-in value support
16019 Stereo Shaper: added context aware type-in value support
15891 Sytrus: added context aware type-in value support
16028 Transient Shaper: added context aware type-in value support
16040 Transistor Bass: added context aware type-in value support
16020 Vocoder: added context aware type-in value support
15902 Vocodex: added context aware type-in value support
15936 Wrapper: show individual choices for .fxb and .fxp when saving a preset from a VST plugin
-
15900 Piano roll scripting: added AddInputCheckbox function to create checkbox options
16012 Piano roll scripting: show scripts in a separate column in the Tools menu

Bug fixes
(common)
15961 "Add to plugin database" doesn't open a folder in the browser but shows an error
15883 A project backup is created every time a clip is made unique from the playlist menu
15216 Audio clip sound is muted when slicing the clip from left side of the playhead with right-click
15927 Automation is not removed after undoing the creation of an instrument track and automation on it
15095 Clips are silent after slicing if there is only a fade-in and no fade-out
15977 Cloned instrument tracks don't always have a unique name
15879 Cloning a pattern from the Current Project section of the browser clones the wrong pattern
15969 Colorful waveforms in the playlist cause high cpu usage
15923 "Convert to automation" window doesn't show when there are multiple screens
16003 Crash when FL Studio Mobile is added to Patcher
15982 Crash when slicing a note in the piano roll
15942 Crash when using F12 to close all open windows
15922 Empty values aren't initialized correctly for bipolar controls when using "Turn into automation clip"
15925 Forward and backward mouse buttons replace automation clip channels with random plugins
16006 GDI handle count increases too much over time
15933 Looped steps don't always show up in pattern clips in the playlist
16007 Memory leak after dropping a file from Windows Explorer
15974 Mixer track name and color aren't reset when cloning of an instrument track is undone
15918 Moving instrument tracks through a large number of mixer tracks is very slow
15782 No undo for "Route selected channels" options
15993 Pasted clips and notes have a slight offset from the intended position
15887 Patterns > Random color doesn't update the picker panel
15795 Piano roll slice tool snaps to scale even if scale snapping is off
15990 "Play truncated notes" doesn't work
15929 Renaming a channel from the channel menu doesn't create an undo history entry
15903 "Route selected channels starting from this track" doesn't work correctly for instrument tracks
16021 Routing in the mixer is disabled even though the confirmation window is canceled
15941 Scale snapping in the piano roll sometimes moves notes while resizing them
15992 Tag text in the browser is difficult to read at 100% scaling
15979 Text in the browser text looks weird
15914 The rectangles explaining spectral regions don't disappear when they're not needed
15831 Undo doesn't reset the mixer track color after the color of its instrument track was changed
15932 Undo doesn't revert automatic assignment of a mixer track when moving audio clips up and down
15937 Using "Send to playlist as" in the browser will crash when the playlist is hidden
-

15374 Directwave: crash when loading a specific preset
15940 Directwave: only the first half of FLAC samples is loaded
15939 Edison: incorrect spelling of "Sensitivity" in the Denoise tool
15947 Edison: saving to a compressed .WAV file doesn't work
15911 Fruity Notebook 2: automation of the page number shows the wrong page
15259 Parametric EQ 2: EQ doesn't update after reset when there's no input audio
15948 Patcher: positions of the "From" and "To" modules change every time the plugin window is opened
15991 Slicer: 'Load sample' animation is broken
15938 Slicex: not everything is shown correctly after resizing
15966 Slicex: when maximized, the plugin window reverts to normal size when a sample is dropped on it
-
16027 MIDI scripting: setting "shift" amount with setStepParameterByIndex causes audio ducking
15888 Piano roll scripting: it should not be possible to type in a value outside min/max range
15963 Piano roll scripting: note release is missing from note properties
15975 Piano roll scripting: the preview isn't updated when changing control values with the mouse wheel

(macOS)
15893 VST plugin editors disconnect from their windows

21.0.99 beta 2 (2023/06/20)

Changes
9615 Added cancel button to the plugin size warning window, when saving
15842 Added an option to enable or disable automatic crossfades when starting a new project
15818 Ask what to do when they drop plugin presets on a large selection of mixer tracks
15834 Don't open plugin editor windows when dropping effects on a large number of multiple mixer tracks
15811 Drag multiple mixer states from the browser to multiple mixer tracks
15843 Change the automatic crossfades option directly from the playlist menu
11360 Channels with data in the current pattern are now shown first in the piano roll target channel menu
13083 Improved the way tag names are shown when the browser is at minimal width
15859 Program now asks for confirmation when Tools > Clear log is clicked
9878 Rename pattern groups by right-clicking on a grouped pattern in the picker panel
13414 Send samples from the browser to the playlist as instrument or audio tracks
15853 Show the audio track "monitoring" button in a different color when monitoring is active
15849 Sort search results in the browser
-
15812 Fruity Slicer window can now be maximized
2019 Slicex window is now resizeable
11319 Transistor Bass: added a button to randomize the sequence
15720 VFX Sequencer: rename programs from the program selector's right-click menu
14218 VFX Sequencer: show the detected chord when playing notes
15845 ZGE Visualizer: initialize Surface tab controls with the parameter value when linking a parameter
-
15877 Piano roll scripting: added a "selected" property to notes
15882 Piano roll scripting: added the Utils.log(msg) method to add text to the debug log

Bug fixes
15751 "Automatic Crossfades" item in the playlist menu doesn't always show the correct state
15844 Clicks when relocating current position during playback in the playlist
15821 Crash when adding a key marker
15833 Crash when moving a clawed selection with scale snapping enabled
15817 Cursor is always too small at 200% scaling when the main screen is at 100% scaling
14985 Fade handles don't repaint after moving a clip to another track

8502 FL Studio windows rescaling issue
15837 M4A format shows 0 disk size in export dialog
15835 Mixer window height changes when FL Studio is minimized and reopened
15870 News item titles don't show ampersand characters
12647 Piano roll Randomize tool groups notes in error
15836 Plugin picker shows both "Generators" and "Effects" text when opened for only generators or effects
15826 Plugin windows change location when changing presets
15855 Pressing F2 when the playlist is focused but detached always renames the current pattern
15863 Reopening a detached plugin dragged to a different screen opens it on FL Studio's screen
15865 Sample previews in the browser's Library tab show partly black when resizing
15829 Scale snapping doesn't disable vertical movement when dragging notes with Shift held
15861 Searching with "enable indexing" off in the browser shows results for more than one folder
15824 Shift + Up or Down does not snap a selection of notes to the scale
15875 "Show gain value" and "Show gain scale" menu items are shown in the piano roll menu
14817 The chosen startup template is not loaded when a message is shown during startup
15800 The note properties window closes immediately after it's opened by double-clicking a note
15789 The playlist scroll position and zoom level is reset for the first arrangement when reloading a project
15872 The program freezes when it's closed
15852 The project tab in the browser can't be hidden permanently
15860 The theme editor selection rectangle highlights the wrong item after selecting the default theme
15862 Tree and Samples layouts in the browser scroll up after each autosave/save
15804 Tweaking plugin parameters forces the sample preview in the browser to refresh
15847 Undoing after not selecting an input, while recording, causes a crash
15854 Undoing a single playlist instrument track deletion doesn't restore the playlist and mixer track colors
15805 Voices re-trigger when opening the piano roll by double-clicking on a pattern clip
15810 When "Auto locate" is enabled it's not possible to open a piano roll for channels with no notes
15656 Wrong files are loaded when projects are saved to a project data folder
15864 Wrong file can be opened in external tool when right clicking on the waveform of the channel
15840 Zoom level is not applied to new browser tabs created with "Open in new tab"
-
15839 Beepmap: the window doesn't resize when the preset changes
12634 Boobass: knobs look different at 200% scaling than at 100%
15807 Diagnostic: recovering a project can result in an empty file if the first option is checked
15792 DX10: the window isn't resizable anymore
15392 FLEX: search filter and tags are not applied after reopening the plugin
15761 Slicex: crash when changing presets
15873 ZGE Visualizer: crash when re-opening the Wizard after renaming layers
-
15880 Piano roll scripting: script modifies notes on other channels
15878 Piano roll scripting: Slide, Porta and Muted properties can be set but not cleared

(macOS)
15867 Can't reorder patterns in the playlist
15846 Crash when replacing a VST plugin with another
15793 Crash when dragging an audio file from Finder
15808 Crash when trying to open a folder (from the browser) that doesn't exist
15813 Freeze when opening a project that contains a trial plugin if there's no license for it
-
15787 Morphine: crash when opened in FL Studio VSTi

21.0.99 beta 1 (2023/06/01)

Changes
15141 Added an "Automatic crossfades" option to the playlist menu (it was already in Project settings)
15604 Added French language

15678 Added a new piano roll marker category: Key/scale
15275 Added a Reset option to the typing keyboard menu
14913 Added "Save as template" to the File menu
8355 Added support for export to M4A files to the render window
15746 Added an option to automatically download installers for new versions of FL Studio
15445 Added a per-project data folder type setting
15472 Added function to show FL Studio hint
15466 Added new locations for where project backups can be stored
15500 Added option to show parent folders in favorites tab
14564 Added a "Crossfade" menu option for fade handles
15396 Added a notification panel for messages from the program
8373 Added an option to the browser to prevent hiding when an item is dragged from it (when detached)
15361 Added a snap to scale button to the piano roll toolbar
15570 Added a way to rename projects (in Project settings)
15628 Added colorful waveforms to audio clips, browser preview and the sample view in channel settings
15481 Added drag and drop for the channel's "Save channel state as" menu
10787 Added macros to detach and reattach all plugin editor windows
15099 Added support for Python scripts to the piano roll tools menu
15507 Allow dragging an audio clip from the picker panel to any place that accepts an audio file
7314 Allow saving zipped loop packages without having to choose a location
14960 Allow user to hide fade handles on certain tools
13093 Browser: added an option to save search results as a browser tab
15317 Browser: added a way to save tags without closing FL Studio
15616 Changed the name of "Sort by" for browser tabs to "Sort files by"
13800 Clicking on the looking glass in the plugin picker will start to type
10546 Dropped effect plugin presets are opened on all selected mixer tracks
15637 Dropped mixer presets are opened on all selected mixer tracks
15618 Enabled fades and undo tests by default
14960 Fade handles are now hidden on some tools
14564 Fade handles now have a "Create crossfade" menu option
FL Studio Mobile updated to v4.3.6 (https://support.image-line.com/redirect/flstudiomobile_changelog)
10699 Installers for new versions of of FL Studio are now downloaded automatically (as an option)
13332 Reduced memory usage of audio clip fades
15687 Renamed the "Tree" view in the browser to "Columns"
15712 Renamed the Update button in the unlock window to Renew
15730 Show a warning when saving zipped projects with duplicate sample names
14656 Show currently selected theme in the preset list
15524 Show the control value while changing the Time Stretching knob in channel settings
15543 Some colors don't reset correctly when switching back to the default theme
15127 Force the MIDI import window to show by holding the Alt key when dropping a file on the piano roll
15757 The position and zoom levels for the playlist window are now remembered per project
14583 The theme list is now updated when files are added, removed or renamed
13528 The "remembered location" cursor in the playlist and piano roll follows High Visibility mode now
-
15443 New effect plugin: Hyper Chorus
15628 Added colorful waveforms in Edison, Slicex and Fruity Convolver
11878 Non-automatable changes in most included plugins now set the project's "changed" property
15537 Beepmap is now a full generator instead of a hybrid one
15673 Diagnostic: added the detected FL Studio version number to the initial page
15672 Diagnostic: show the version of FL Studio that Diagnostic was started from
15145 Drumaxx: the host is notified when output routing changes
12612 Edison: added "Type in value" to controls in the time stretch window
14035 Edison: the declipper now uses a machine learning model
11493 FLEX: show presets included in a pack when browsing the built-in shop
15236 Fruity Slicer: the plugin window is now resizable when a sample is loaded
13288 NewTime, NewTone: moved the Link Playback and Scroll Lock buttons under the transport controls
1199 Ogun: re-implemented "Create Pad Harmonics"

-
15621 MIDI scripting: added an event to know when it's "safe" to change a control

Bug fixes
(common)
15663 Adding multiple samples with identical file names doesn't create unique names in project folders
15457 Audio clips are louder if they're playing when the piano roll is opened
15512 "Browse parameters" from a plugin doesn't work when the browser is showing search results
15608 Browser doesn't show the same file as selected after the program restarts
15633 Browser: "Search in selected folder" doesn't work when the Packs folder is open
15523 Clicking in the empty area below the folder list in the browser opens a random folder
15561 Can't drop a MIDI file dragged from Meldaproduction MDrummer to the piano roll and channel rack
15629 Can't select items in the browser after undoing changes
15620 Channel window caption doesn't change when the mixer track routing is changed
15650 Crash when closing FL Studio in some cases
15607 Crash when detecting new MIDI devices
15581 Crash when locating a sample that was opened from the Starred tab in the browser
15747 Crash when opening the Favorites tab in the browser
15519 Crash without warning under some circumstances
15685 Crash when dropping a generator on slot 1 of a mixer insert
15691 Crash when grouping selected patterns without a group name in the picker panel
15215 Crash when redoing changes after undo in a new playlist arrangement
15638 Ctrl + Click on the track selector in the playlist selects the fade in handle of a clip
15610 Deleting unwanted created files doesn't always work
15744 Detached plugins don't always remain on the same monitor when reopened
15488 Detached plugins may cause file open/save dialogs to open on the wrong screen
15515 Dragging audio clips from the browser can create patterns or automation clips in the playlist
15721 Dragging an item from the browser starts too quickly when the display is scaled
15490 Dropping a generator on a mixer slot doesn't add the plugin and crashes on undo
15728 Help for the channel settings automation editor goes to the "Miscellaneous Channel Settings" page
15715 Fonts aren't loaded correctly when the program is installed to a path with unicode characters
15449 Fully overlapping clips create incorrect fades
15652 Items in the channel filter list are not sorted logically
15123 Latency is not reset when replacing a VST, VST3 or AU plugin with a native plugin
15594 Locating a sample in the browser should also select it in all layouts
15658 Message shown to detect tempo when loading an MP3 file is not always correct
15460 MIDI settings panel has controls in wrong places
15220 MIDI sync is unreliable
15644 Misplaced question mark in the when replacing an audio clip's sample
15508 Mixer track names are not set correctly on undo and redo after resetting a playlist instrument track
15452 Pages in the background web browser don't always load completely
15632 Popup menu for audio and automation clips in the picker panel has a "Patcherize" option
15398 Prevent fades from moving when Stretch Pro mode is used with Tempo Automation
15713 Re-attached plugin editor windows are mostly not visible
15742 Samples that are already in the project data folder are still copied to it
15722 Saving a project with a data folder to a zip file still saves content to the data folder afterwards
15552 Searching in the favorites tab in the browser returns wrong results
15611 Some buttons look like they're pushed when the mouse cursor moves over them
15592 "Store data relative to the project file" shouldn't set a path until a project is opened
15485 Tempo automation causes stuttering when Automatic Crossfades is on
15511 Temporary preset files for duplicated instrument tracks are saved to the Sliced Beats folder
15574 The data folder is incorrectly set when when opening zipped projects
15527 The fades gain pause test fails on some machines
15571 The message shown when dragging a non-unique audio clip to an audio track is misleading
15560 Themes with an HTML background can prevent FL Studio from starting
15764 The playlist position and zoom level are not reset when opening a new project
15584 The project data folder isn't updated when saving a project with Save As

15544 The wrong MIDI controller type is shown when a type is selected
15726 Track assignment for a channel isn't updated if the channel rack is hidden
15405 Turning a precomputed effect knob for a sampler channel doesn't always show the current value
15562 Typing a value for the envelope tension controls in channel settings doesn't set the correct value
15631 Unused "sliced audio" files aren't deleted when other unused files are
15525 Using "Receive notes from" with a specific MIDI channel prevents previewing other MIDI Channels
15724 Visual glitch in the piano roll when there is a background waveform
15653 Wrong sample file is used when a sample is dragged from a zip file
14950 Zooming on the far right edge of the playlist, piano roll and event editor is not correct
-
15536, 15578 3x Osc, DX10, Fruit Kick: maximum polyphony doesn't work
15565 Beepmap: crash when dividing by zero
15723 Beepmap: invalid window handle error when switching between editor tabs
15579 Convolver: allow playback to start and stop while tweaking envelope points
15627 Convolver: crash when creating automation clip for some controls
15597 Diagnostic: previously recovered file is overwritten when recovering the file again
15692 Diagnostic: web browser doesn't load when it's loaded in FL Studio as well
15564 Edison: script errors show an empty error message
13063 Edison: suffix "_2" is added to dragged filenames when it doesn't need to be
15701 FLEX: Love Philter is out of sync
15711 Maximus: high CPU usage when using linear phase
1563 Maxx plugins: Max Polyphony doesn't work
15714 Maxx plugins: crash when the program is installed to a path with unicode characters
15603 Newtime: crash when using "Edit in time warper" for a sample with 8Khz sample rate
15596 PanOMatic: some controls have incorrect "Type in value" values
15741 Parametric EQ 2: cpu usage can be higher than necessary
15569 Patcher: pressing F1 with Patcher focused will show the help for the first plugin
15598 Slicex: allow playback to start and stop while tweaking envelope points
15725 Slicex: "Set all cut groups to.." is missing in the region menu of Deck B
15189 Toxic Biohazard: crash in pluginval
15548 Transistor Bass: play button's image is not centered on the button
15235 Transistor Bass: pitch doesn't change immediately after changing the selected engine
15384 VFX Level Scaler: the value shown in the hint panel for the multiply parameter is incorrect
15547 Wrapper: crash when right-clicking on controls in some plugins
-
15634 MIDI scripting: Browse Files on the Akai Fire doesn't show any names
15542 MIDI scripting: playlist.soloTrack doesn't do the same as soloing a track with the mouse
15686 Missing SBN constants in midi.py

(macOS)
15667 Can't drag and drop files when a window is detached
15772 Downloading content in the browser doesn't always work
15601 "Reset mixer track" deletes tracks that have detached plugin windows open
-
15007 Maxx plugins: the editor window doesn't respond after using Riff Machine
15447 Wrapper: plugin editor windows are separated from the host window

(Windows)
15491 The visual frame rate is not always very stable

21.0.3 (2023/04/04)

Changes
14986 Browser: added a shortcut to send a file to a channel (Ctrl + Alt + Click, Cmd + Option + Click)
14766 Browser: added an "installed" badge to items in the library tab
15434 Browser: added a "refresh" button to the search field when a projects changes
15192 Default plugin tags can now be disabled in the browser menu

15311 Deleting all grouped clips in the Picker Panel doesn't remove group if it's empty
14688 Fades: old projects now load with automatic crossfades turned off
15193 FLEX packs can now be dropped on the Channel Rack window to open a new FLEX instance
11248 Improved visibility of the selected playlist track when it's playing
15238 Master pitch wheel now increments per 100 semitones when the mouse wheel is used
12903 New detached plugin windows are now opened on the same screen as the FL Studio window
15262 News items show the date they were published
4636 Pattern groups from the picker panel now also show in the Current Project section in the browser
15005 Preview files in the Library tab of the browser now load more quickly
15295 Project files can be dropped on the channel rack
15312 Show information in the debug log about failed downloads
15210 Show progress in the Downloads panel while installing items
14693 The browser's tab list can now scroll when there are too many tabs to show
12002 The Controller Type list in the MIDI settings window now shows scripts first
14784 The HTML background option now uses the embedded Edge browser (on Windows)
15132 The project info now includes the number of arrangements in the project
-
15203 FLEX: show something nice when there's nothing left to buy
8193 Wrapper: the VST3 kLegacyMIDICCOutEvent event type is now supported
-
15038 Scripting: added a function to get information to identify a device
15237 Scripting: added the mixer.setActiveTrack function
15319 Scripting: added a function to start and stop playback
15042 Scripting: added a function to clone patterns
15043 Scripting: added a function to get the index of the "active" effect plugin
9419 Scripting: added a function to retrieve the MIDI channel for a linked control
15041 Scripting: added support for global channel indexes within the plugins module
15286 Scripting: added a function to open the editor window for effect plugins
15435 Scripting: added a function to set the target mixer track for a channel
15478 Scripting: added functions to control step input mode
15356 Scripting: allow MIDI devices with the same name to use different scripts

Bug fixes
(Common)
15219 A different pattern can be selected while renaming a pattern
15418 Adding a new pattern uses a pattern that has muted notes
15191 After using tags to search in the browser, not all folders are visible
14758 Browser hides when the mouse cursor moves if Auto-hide is on
15484 Browser: left and right arrow keys can't be used to navigate when the search box is focused
12779 Browser menu is not closed when the menu button is clicked
15350 Browser: parameter names from Patcher aren't shown completely
15450 Browser: pressing up/down key while in the search results will set the focus to the search text box
14770 Browser: some products on the library tab show a 'Free' badge for owned products
15487 Browser: tags with spaces are split when they're deselected
15315 Browser: the preview panel isn't shown for folders
15489 Browser: the search box loses focus when browser auto-hide is enabled
15307 Can't move from item to item with arrow keys when searching in the browser
15283 Can't resize the piano roll window at the bottom of the event control selector
15353 Channel rack: the "Channel button width" menu doesn't show the correct size after a restart
15258 Choosing items in the browser by typing a letter on the keyboard doesn't work
15408 "Copy used samples to the project folder" option is now disabled when there's no project folder
15188 Copying text from the script output window with a keyboard shortcut doesn't work
15329 Crash when adding patterns to a group when they were deleted and undeleted
15300 Crash when closing the program
15499 Crash when drawing a time indicator
15209 Crash when previewing some AIFF files
15225 Crash when removing a file search path
15425 Crash when "Select by selected source" is selected in the playlist
13749 Crash when using scripts in FL Studio as a plugin
6780 Dragging a pattern onto the channel rack creates an empty channel and sometimes crashes

14358 Enabling loop mode in the piano roll can take a long time
15400 Fixing invalid data folder paths doesn't always work for project backups
15442 FL Studio tries to locate removed rendered samples when loading a new project
15496 Grouping patterns can remove patterns from a group
15492 Having an HTML file as a background in FL Studio doesn't work
15230 Item names in the browser are converted to lower case if they've been starred
15200 Loading projects from the command line doesn't set the default save location to the project folder
15314 "Make unique as sample" doesn't always create a new sample file in project folders
15371 Named patterns at the end are overwritten when using "Make unique"
15409 New Project dialog shouldn't allow the project name to be set to project subfolder names
15204 No sound when previewing XI files
11693 Piano roll becomes invisible if it's maximized and then detached
15348 Potential crash when playing notes
15326 Products are mistakenly added to the cart when opening the in-app shop
15094 Project info only counts visible playlist tracks and clips
15394 Project template backups appear in the "New from template" menu
15180 "Rename and color" and "Change color" don't work for pattern clips
15245 Script output window doesn't accept commands on the Interpreter tab if there are other tabs
15229 "Select by selected source" doesn't work for multiple pattern selections
15330 Selected folders and open folders in the browser look the same
15473 Some incomplete backup files are created when FL Studio closes
15467 Some text has the wrong color in the unlock window
11642 Stuck notes when adding VFX plugins as a generator in Patcher
15414 Text using Georgian letters doesn't show up in the playlist
15292 The browser doesn't change the changed folder's location when it's refreshed automatically
15195 The hint for the file path in channel settings is not updated when saving into a project folder
15379 The maximum number of backups is not respected when a project data folder is used
15199 The notification panel's scrollbar is too big when the panel is first opened
15285 Tweaking insert send level and effect slot mix level in the mixer increase CPU usage
15247 Visual glitches when scrolling the playlist or piano roll horizontally
15455 Voices for clips with fades are not killed on stop
15463 Wrong track is renamed to REC when recording to the playlist
-
15183 Themes: grid colors are not reloaded when a theme is saved
15279 Themes: In dark themes, selected items in the browser are difficult to see
15185 Themes: menus can be difficult to read in dark themes
15234 Themes: the latency icon in mixer tracks is orange instead of blue for manual latency
-
15373 3x Osc: program stops responding when tweaking the filter in some cases
15218 Balance: low-level noise in the audio output
8428 Convolver: the equalizer resets to +12.04db (max) instead of the center value
15313 Diagnostic: fixing a project file doesn't work
15456 Diagnostic: HTML formatting is broken in some cases and can break the forum post layout
15366 DrumSynth Live sends a lot of routing updates when opened
15207 Edison: script dialog text cannot be copied with Ctrl+C
15205 Edison: InsertSilence script function can't insert at end location
15232 FLEX: the message shown when there is no internet connection is not animated
15288 FL Studio Mobile: crash when opened in Patcher
15363 FPC: parameters are linked to the wrong controls
15212 Limiter: latency is not reported correctly when a sidechain input is selected
14793 Maximus: no movement in the Monitor tab for the de-esser presets
15454 Newtone: pitch correction files aren't always saved into zip files and project folders
15244 Pitcher: MIDI notes sent to the plugin are not received
15391 Slicex: pressing space while dragging a marker starts the playback in FL Studio
15336 Soundfont Player: crash when opening a specific soundfont file
15248 Sytrus and Ogun: graphical glitches when moving a window over the plugin
15293 Sytrus: crash when deleting an envelope point while voices are playing
15354 Wrapper: automation is sent to the wrong parameter in a VST3 plugin when the order changes
15327 Wrapper: VST3 plugins are processed when they're not activated
15364 ZGE Visualizer: incorrect colors on export

-
15441 Edison scripting: Region properties are missing
15201 Scripting: missing constants in midi.py
15228 Scripting: scripts are not notified when a pattern changes while the picker panel is hidden
15387 Scripting: some Python functions fail when used from interpreter tab
15464 Scripting: clonePattern expects an index starting from 0 instead of starting from 1
15479 Scripting: channels.isChannelSolo returns incorrect values when all channels are muted
15498 Scripting: the default value for mixer.soloTrack is incorrect

(macOS)
15298 Crash when playing the NewStuff project
15332 Plugin windows move to the main desktop when FL Studio is full screen
15351 The reported latency is not correct when using Core Audio
-
15297 EQUO: crash in some circumstances
-
15344 Scripting: crash in Python

(Windows)
15249 "Save to new project folder" doesn't work when the folder was customized in Windows Explorer

21.0.2 (2023/01/27)

Bug fixes
14783 Sample has noise at the end when its length value is changed in the channel settings window
-
10917 DirectWave: crash when a soundfont file is opened
15012 Patcher: plugins like GMS and PoiZone don't receive notes from MIDI Out
15167 Pitcher: crash when receiving a note on MIDI message
-
15186 Themes: new patterns are black in the default theme

(macOS)
15136 Dragging the "Save preset as" menu item for mixer track slots doesn't always work
-
15156 FPC: opening a MIDI loop from the file open dialog doesn't always work
15190 Wrapper: Plugin Alliance VST3 plugins crash after showing the popup menu for a control

21.0.2 RC2 (2023/01/24)

Bug fixes
15168 Crash when sending a MIDI note on message to Pitcher
15166 Dragging a selected clip in the playlist deselects it
15174 Plugin names are orange in the Plugins tab when the "Plugins" view layout is selected
15164 The "Preview" option on audio clips and samples doesn't work
15130 The program is slow to respond when the playlist and piano roll windows are repainted
11541 The volume of notes played on a VST plugin is not correct after it's removed from a layer channel
15178 Visual glitch when scrolling the playlist horizontally when "Keep labels on screen" is on
-
15169 Edison and Slicex: crash when pressing delete while holding a marker
15162 Luxerverb: crash when switching Patcher presets
-
15165 Browser: search results are missing or slow to show up in the "Plugins" tab
15170 Browser: tags removed with the "Delete" function are back after the program is restarted
15181 Browser: the position of frozen tabs is not saved
15157 Browser: updating the browser when loading a project slows everything down

-
15114 Fades: gain tag doesn't repaint when scrolled away and back
-
15171 Themes: buttons to arm recording and enable mixer track effects do not change color when clicked
15182 Themes: the color of a mixer track's name label changes when the track has an icon
15172 Themes: the color of selected mixer track volume faders is not correct when the track is armed

21.0.2 release candidate 1 (2023/01/20)

Changes
14928 FL Studio ASIO was updated to version 1.05
-
FL Studio Mobile updated to v4.2.7 (https://support.image-line.com/redirect/flstudiomobile_changelog)
15090 Formula Controller: added a function to retrieve song tempo
-
14095 Browser: added an option to show items but not folders that match the search pattern
14964 Browser: sample preview stops after favoriting items
14905 Browser: the open option for FLEX packs in search results now opens it in FLEX
-
14431 Fades: added a separate option to view the gain value on audio clips
15019 Fades: the dark outline around the gain handle in audio clips is now more visible
-
15039 Scripting: improved control over the note snapping mode

Bug fixes
(common)
15034 Adding a layer doesn't add undo information for the layer's children
15016 Adding a speech channel results in the wrong name when the "Auto name channels" is disabled
14877 "Analyze audio" for automation clips does not line up with used audio
15000 Arming disk recording in the mixer doesn't use the custom file name for the recorded files
14997 Automation clips are assigned to the wrong controls after undo and redo
12482 Channel menu: "Route to free mixer track" is enabled for instrument tracks
14955 Channel rack: visual bug with grayed steps
14993 Crash: "Cannot change Visible in OnShow or OnHide"
14966 Crash when updating the news
15117 Crash when saving a theme preset with a very long name
15033 Dragging a mixer state preset on a channel doesn't create an undo entry
14881 Freeze during playback
15001 Freeze when searching for missing files from the previous project when creating a new project
14968 Importing used project samples into project folders doesn't always update the sample paths
15097 It's possible to set invalid values for automation clip nodes with "Type in value"
15013 Lag and underruns when showing many clips in the playlist
14976 Merging Pattern clips adds steps to the merged clip
15144 Not all products in the in-app shop can be seen
15052 Piano Roll window updates lag in some situations
15084 Picker panel tabs are not visible when the picker panel is shown on the right side
14973 Playback position starts later than expected when the playback cursor is past the end of the song
15036 Program crashes when plugins crash while processing
8450 Projects opened by a test are added to the list of recently opened files
14998 Quick Legato will extend the last note in a series beyond the expected length
15023 Redoing "Clone" or "Clone with links" doesn't restore the channel correctly
15015 Redoing "Make unique" or "Merge" on clips doesn't restore the channel in the correct group
15062 "Redo knob tweak" doesn't work on plugins that were delayed by another
13884 Renaming doesn't create an undo history for audio clip and automation clip
14842 Rendering a track doesn't add the sample to the playlist
15158 Sample paths aren't always updated when moving files to the project data folder
14969 "Select by selected source" in the playlist selects more than it should

14971 The envelope graph in the channel settings window can show outside of its boundaries
15073 Text fields in the unlock window have yellow text instead of white
14939 The last project folder isn't remembered when opening a project from a file manager
15051 The recent files list can have multiple copies of the same file
15143 The startup template is used directly as the working project
14918 The suggested project data folder path is incorrect after exporting audio
15086 The wrong root note is selected in the Touch Keyboard's menu after Alt + Click
15083 Unused created files may still be deleted when the user chooses to not delete them
14987 Wrong sample path for project folder samples if an invalid data path is updated
-
15142 DirectWave: audio output spikes when using some FLAC samples
15133 DirectWave: audio routed to other tracks doesn't always play
15030 Edison: scripting - AddInputCombo doesn't work correctly with items containing spaces
15027 Edison: scripting - calling AddInputCombo with a negative value does not work
14959 Edison: unicode text in markers is not remembered correctly
15104 FLEX: locking a panel doesn't work when the effect is off
15089 Formula controller: single function expressions fail to compile
15155 Frequency splitter: EQ curves can't be dragged when the output is set to infinite
14705 Hardcore: cabinet models can't be selected
15120 Luxeverb: tempo-synced delay time wrong when knob is set to the minimum value
15003 Parametric EQ 2: incorrect behavior with "Minimum phase mode speed" and "Linear mode"
14740 Patcher: dropping a preset on a connection doesn't work when the map has been scrolled
15002 Patcher: some loaded presets show all the item in the map compressed
15128 ZGE Visualizer: error when exporting with custom resolution
15061 ZGE Visualizer: importing a .MOV file does not maintain its transparency
14975 ZGE Visualizer: Polar effect doesn't load
14995 ZGE Visualizer: various spelling mistakes in effect parameters and hints
15077 ZGE Visualizer: the Surface panel doesn't have the same size as the plugin window
-
15109 Scripting: script is not informed when the picker panel sort order is changed
-
15046 Browser: cache doesn't ignore system folders
15078 Browser: can't create the configuration file for the ALL tab
15107 Browser: crash because there's no mapping for a Unicode character
15076 Browser: crash when clearing the browser preview wav file
15082 Browser: crash when opening some .FLAC files
14965 Browser: crash when opening the FLEX plugin
14908 Browser: doesn't return to the parent folder after removing a file
15067 Browser: double playback when the search field loses focus
14977 Browser: folder and file results in a search are not merged
15093 Browser: freeze when going to the browser through the View menu if default tabs are hidden
15074 Browser: item text is a little bit dimmer than before
15159 Browser: long item text isn't always shown when hovering over the item
14972 Browser: not all subfolders are removed from cache after removing a search path
15008 Browser: opened folders are not remembered when switching between tabs
15011 Browser: opening items from the popup menu doesn't work for folders in search results
14967 Browser: opening the "My projects" folder in a new tab doesn't add all folders
15057 Browser: search in some Chinese language text should start after the first character is entered
14958 Browser: searches show double results in a duplicated ALL tab
14999 Browser: Sort by group doesn't work for subfolders
15148 Browser: the Current Project section is updated more often than it should be
15151 Browser: the Starred tab doesn't show images for items
15035 Browser: the favorites menu is shown for some items when it shouldn't be
14996 Browser: the first item in the list is highlighted when opening the program
14864 Browser: the position in the item list is wrong after switching between tabs
-
14980 Fades: fade may use the classic declicker when the event is longer than the sample
14963 Fades: the wrong cursor is shown on other tools while the cursor is over fade handles
-
15101 Themes: file extensions are illegible in light themes in the browser
15058 Themes: mixer effect slot colors are not always correct

15131 Themes: mixer track labels are the wrong color
15102 Themes: the color of fade and gain menus on audio clips don't match the clip menu color
15125 Themes: the color of new plugins in the "More" plugin window is incorrect
15065 Themes: the gears in the About window don't change to the correct color when changing themes
15138 Themes: the hint bar text can't be seen in the default theme
15075 Themes: the new clip buttons on the playlist are the wrong color
15064 Themes: the Pan and Volume knobs in the channel settings window revert to orange
15129 Themes: the touch keyboard window has the wrong colors when the theme changes

(macOS)
15048 Crash when loading huge .MP3 files
15079 FL Studio doesn't close while scripts are downloaded
15081 MIDI script and language files are updated more often than they should be
-
15154 3x Osc, DX10, Fruit Kick: the plugins are automatically detached when they shouldn't be
14988 FL Studio AU: the user interface isn't shown
14943 Transistor Bass: no value is shown in the BPM field
15108 ZGE Visualizer: video export sometimes creates only an audio file
15112 ZGE Visualizer: wrong scale when used with multiple screens
-
15091 Themes: crash when black is used for the Text color

21.0.1 (2022/12/20)

Bug fixes
14940 Shift + right click to slice an audio clip sometimes mutes active voices for that clip
-
FL Studio Mobile updated to v4.2.4 (https://support.image-line.com/redirect/flstudiomobile_changelog)
-
14956 Browser: folders can be removed from frozen tabs
14954 Browser: search doesn't work on tabs created from a folder with "Open in new tab"
14888 Browser: "Sort by" resets after switching tabs
-
14880 Fades: fade outs are aliased relative to the slice length

21.0.1 Release candidate 2 (2022/12/19)

Bug fixes
14930 "Can't save while recording" message shows up when it shouldn't
14941 Dropping audio clips onto playlist tracks doesn't deselect other tracks
14944 Freeze when starting and stopping playback quickly
14911 The theme editor isn't opened when the show button is pressed for downloaded themes
-
FL Studio Mobile updated to v4.2.3 (https://support.image-line.com/redirect/flstudiomobile_changelog)
-
14932 Themes: Automation clip editor lines are sometimes too close to the clip color
14926 Themes: Automation clip editor window isn't correctly themed
14929 Themes: custom color for grids isn't loaded with a theme
14922 Themes: plugin list in the mixer isn't dimmed when no plugin is present
14915 Themes: the shop window is themed incompletely
14927 Themes: mixer volume sliders turn an odd colour when pressed in some themes
14931 Themes: new plugins are not visible in the More... plugin window for dark themes
14916 Themes: knob fill color is incorrect
14912 Themes: incorrect colors on the news and download panels
14942 Themes: outline of "INSTALLED" info on downloaded packs is white in the default theme
14934 Themes: playlist clip menus are not very visible in dark themes

14936 Themes: knobs on the channel settings window have the wrong color when switching themes
14914 Themes: selected playlist clips have the wrong color
14935 Themes: some themes fail to set the mixer meter colors
14933 Themes: the tempo tapper is incorrectly themed
14925 Themes: tweaking the default theme no longer works

21.0.1 Release candidate 1 (2022/12/16)

Changes
14678 The macOS version now migrates settings from FL Studio 20
14806 The "Insert point(s) at marker(s)" menu in envelope editors is renamed to "Insert point at locator"
-
FL Studio Mobile updated to v4.2.2 (https://support.image-line.com/redirect/flstudiomobile_changelog)
14867 Luxeverb & Vintage Phaser - Enable disabled sections when people edit any of the controls
14818 Wrapper: keyboard processing by FL Studio (after the plugin) is now disabled by default
-
14808 Scripting: added a function to query if a pattern is empty
14807 Scripting: added a function to route a channel to mixer a track
-
14836 Browser: added a button to reset the browser cache (File settings > Troubleshooting)
14796 Browser: demo samples in the content tab are shown differently
14765 Browser: right-click on items in the Library and Sample views will preview from that position
14851 Browser: the show button (content tab) opens theme settings for downloaded themes

Bug fixes
14885 Automatic fades on stretched clips aren't reset when the song is reset
14857 Clips added to the playlist with the paint tool aren't selected (when themed)
14875 Crash when adding plugins to the plugin database
14815 Deletion of a cloned instrument track doesn't delete the associated pattern
14846 "Don't show this in the future" in the project window isn't applied when Skip or Cancel are clicked
14863 Dropping an audio clip onto a playlist track header resets the color of another track
14854 Dropping a pattern on a playlist track header resets the color of another track
14760 Freeze when consolidation of clips is aborted
14881 Freeze when slicing clips
14826 Pressing F1 while the project window is open doesn't open the correct help page
14812 Project window is shown when scanning the FL Studio VSTi plugins
14809 Revert to last backup doesn't work for a project folder backup after restarting the program
14901 Samples dragged into the playlist from Edison are saved to the project data folder
14789 The menu for automation clip nodes affects the focused clip instead of the one that was clicked
14798 The program closes when saving is canceled
14829 The program doesn't start when you double-click an .flp file in a path with unicode characters
12895 The program is minimized when a "file is in use" error is shown during background rendering
14843 The project window doesn't prevent use of invalid file names
14794 The project window isn't shown when a project was created from a custom template
14775 The MIDI velocity curves are not remembered
14759 Unique filenames are not always correct when using "Make unique as sample"
14861 Various issues with "paste at playhead"
-
14893 Control Surface: crash when duplicating a bevel control
14821 DirectWave: crash when loading some .dwp files
14837 DirectWave: saving in monolithic mode with FLAC compression increases memory usage
14791 DX10: different sound different compared to 20.9.2
14819 Edison script dialog freezes if auto close audio device is on
14898 FLEX: SINC16 interpolation is broken
14738 Fruity Convolver: some controls can't be reset from their popup menu
14859 Maxx plugins: "Load program" doesn't work
10048 Morphine: PWM Filter mode buttons don't map correctly to their modes

14869 Patcher: patcherizing FLEX can crash
14790 Patcher: the map tab is too small when opened from the More plugins window
-
14849 Scripting: mixer.getTrackColor() returns the wrong color for unused tracks with a custom theme
-
14871 Browser: browser refresh will clear the contents of the starred tab
14822 Browser: crash when using the browser cache
14868 Browser: crash when the browser is refreshed while a menu is open
14870 Browser: crash when closing the program after scanning for plugins
14757 Browser: can't preview samples with the arrow keys when the search field is focused
14613 Browser: clicks & pops when previewing samples from a random point
14834 Browser: crash when the program starts if the browser shows the plugin view
14902 Browser: samples preview when Shift is held while using the up and down arrow keys
14797 Browser: the title of an item in the online tab sometimes obscures the favorite icon
14778 Browser: frozen state is remembered when switching between tabs when it shouldn't
14852 Browser: "Open in a new tab" uses an incorrect path when used from a duplicated tab
14903 Browser: preview is reinitialized unnecessarily when the program is closed
14886 Browser: when searching, some results paths are added with the wrong folder
14876 Browser: some folders in search results are lower case when they shouldn't be
14899 Browser: some tab options are shown for the starred tab when they shouldn't be
14841 Browser: some tabs can be cloned when they shouldn't be
14780 Browser: tabs are not visible if they're frozen
14832 Browser: tagged and starred items don't show in search results
14873 Browser: the browser is refreshed unnecessarily when dropping a plugin on the mixer
14900 Browser: the cache is not refreshed after removing folders
14776 Browser: the cache is not refreshed when user search folders are removed
14840 Browser: the folder button in the search field is in the wrong place
14671 Browser: undocking and redocking the browser forces its width to be maximized
14839 Browser: unnecessary refresh when the program is started
14907 Browser: white doesn't work when changing a folder color
-
14782 Fades: "Create new clips with manual fades" does not apply to track recordings
14800 Fades: "Create new clips with manual fades" option doesn't work for audio clips
14762 Fades: the playlist is repainted too often when editing fades
14781 Fades: playback and rendering is different when there's pitch automation
14779 Fades: playback of a clip with fades stops when the clip is sliced
14767 Fades: Select tool no longer works when fade editing is switched off (Shift+F)
-
14889 Themes: browser plugin preview images don't re-theme when switching themes
14628 Themes: icon color in message windows is incorrect after switching back to default
14860 Themes: mixer track playlist track menus are the wrong color
14621 Themes: muted notes in the piano roll are black
14451 Themes: painted clips don't remain selected when the mouse button is released
14726 Themes: pause button text is sometimes not easy to see
14795 Themes: tests window doesn't change when another theme is selected while it's open
14825 Themes: text in controls on the toolbar looks washed out when switching from a theme to default
14878 Themes: the MIDI import window isn't themed
14855 Themes: the piano roll Fill tool window doesn't show any colors when not themed
14895 Themes: some text on the Unlock window can't be seen when using some dark themes

(macOS)
14787 FL Studio as a plugin has the wrong size and the mouse doesn't work (macOS 13 Ventura)
14639 The General tab options button in the settings window doesn't do anything
-
14824 ZGE Visualizer: the preset button is not clickable

21.0 (2022/12/05)

Changes
14699 Added a "Skip" button to the new project window. This will show the normal save window
14704 Saving while recording is no longer allowed. Recording should be stopped first
-
14706 ZGE Visualizer: alpha channel is included when saving a .png file
-
14701 Browser: "Add folder to tab" now also works on user tabs

Bug fixes
14721 Crash at startup
14691 Crash switching from Downloads tab to News
14713 Crash when loading a speech file
14735 Default save location can be wrong when reverting to last backups
14695 F1 doesn't open the help file when the settings window is focused
14756 New project window doesn't show the correct PPQ value for the chosen template
13821 Pen tool in the event editor affects the cell to the left of the cursor
14708 Quick Legato snaps to bars when it shouldn't
14707 Reloading projects from recent files list doesn't set the correct save location for the project
14734 Reverting to a project folder backup and then saving the project shows the new project window
14685 Slow startup when the plugin database contains a lot of plugins
14711 The "View project info" button on the toolbar opens project settings instead of project info
14683 User interface slows down when changes are made in the playlist and fade controls are visible
14703 Wrong hints for some items in the "Ask for project folder" settings
-
14748 3x Osc: global LFO speed is incorrect when there are multiple instances of plugin
14718 Diagnostic: missing info in the Fl Studio section
14749 Directwave: samples are not loaded when opening a zipped project
14737 Maximus: opening and closing the editor window repeatedly freezes the program
14697 Multiband Delay: erratic indication of x0.1 enabled state
14736 Patcher: hints of host source nodes aren't correct after loading a project
14728 Patcher: right-click popup menu for some plugins doesn't work
14729 Patcher: routed inserts are deactivated when loading a project
14732 Scratcher: logo is the wrong size if there are two instances with different editor sizes
-
14755 Browser: Alt + Click selects multiple items
14744 Browser: crash after opening project from Current Project
14727 Browser: crash when updating content
14696 Browser: crash when opening the cache file
14731 Browser: contents aren't updated after deleting a file
14710 Browser: cache file is not compressed after a search
14723 Browser: dragging a score from the piano roll opens the ALL tab when it shouldn't
14694 Browser: Alt/Option + Left Click on a sample doesn't play the full sample preview
14739 Browser: images do not fit with zoom set to small for the plugin view
14720 Browser: playback indicator shows on the wrong item when previewing different samples quickly
14753 Browser: speech files are not previewed in base view
14698 Browser: Starred tab should ignore the "Show parent folders" search option
-
14687 Fades: during playback, editing of fades is broken when there is pitch automation
-
14733 Themes: reverse stereo and polarity buttons on mixer inserts don't light up when selected
14725 Themes: the playback indicator line in the graph editor is not themed
14724 Themes: the text for new plugins in the More plugins window isn't themed

(macOS)
14670 Browser: random crash when clicking through samples

21.0 RC2 (2022/11/25)

Changes
14574 Added a "Copy used samples" checkbox to the Project settings tab
14659 Added the option to copy samples to when the data folder is changed in the Project settings tab
14650 The warning about running as an administrator user is no longer shown
14673 Tools > "Browser smart find" is renamed to "Browser find" and will filter the browser contents
-
14651 Luxeverb: add a visual indication when Reverb\Feedback is disabled
14652 Vintage Phaser: added a visual indication when Delay is disabled
-
14599 Browser: don't open the ALL tab when adding plugins to the plugin database if its tab is open

(Windows)
14640 FL Studio will migrate settings from previous versions

Bug fixes
14684 Clips pasted in the playlist are in the wrong location if the playhead moves to a time selection
14654 Clips pasted in the playlist are in the wrong location when the playhead is inside a time selection
14663 Dropping a mixer track preset on a selection of audio tracks only opens the preset once
14653 Enabling "Copy used samples" option in Project settings doesn't offer to move used samples
14619 Keyboard to piano doesn't work
14661 "Locate sample in browser" button in channel settings doesn't work with some browser layouts
14637 Memory leak when opening a project
14676 Don't use a project data path for zip projects
14518 Playback of consolidated and recorded clips is different
12278 Plugin window is not in front after dropping a plugin preset on a playlist track header
14584 Positions of tabs in the settings window are not the same at 100% and 200% scaling
14679 Project data path label is not updated when the path is changed
14618 Project names don't always update in the title bar or the most recently used file list
14593 Redoing track consolidations doesn't restore the rendered file into the Audio subfolder
14609 Rendered samples are deleted when retrying the render
14658 Save As will copy samples to the new project folder even when the copy option is off
14641 "Save to new project folder" doesn't always copy samples to the new project
14660 Saving a project changes its time signature to 4/4
14604 Show the regular Save As window if the project is already saved
14566 Undo doesn't work after moved recorded files are moved to a project folder
14666 Used samples are copied into project folders when loading projects
14596 Wrong hint for the Move and Copy options in the project dialog
-
14636 3x Osc: filter type can't be automated
14586 Diagnostic: missing search paths in user reports
14638 Fruity Dance: no movement when the program is not playing
13687 Love philter: wrong info on the hint panel when hovering over filter modes
14648 Patcher: open plugin windows show the options instead of the editor when a project is loaded
14615 Parametric EQ 2: histogram resets periodically when Average mode is on
14601 Slayer: about image is cropped on screens with scaled resolutions
14606 ZGE Visualizer: crash after switching between presets
-
13760 Scripting: getting and setting parameter values is slower than other plugin parameter functions
-
14649 Browser: accelerator keys in the sample popup menu don't work correctly
14657 Browser: channel preset files from Project Bones are not previewed
14626 Browser: clicking the middle mouse button doesn't focus the browser
14623 Browser: crash when refreshing browser if the cache is disabled
14616 Browser: don't open the ALL tab when a folder is dropped in a tab
14607 Browser: node height is not correct when the browser contents are filtered
14662 Browser: some menu functions do not work if an item is not selected
14570 Browser: tab sizes are not always remembered
14664 Browser: the typing piano keyboard doesn't work when the browser is focused
14614 Browser: "Locate sample in browser" option adds new search paths when it shouldn't
-

14675 Fades: crash when editing fades
14674 Fades: lowering PPQ changes fade duration
14668 Fades: the classic declicker is not used when the fade out is zero length or automatic
-
14620 Themes: color of mixer tracks is not always correct
14555 Themes: disabled plugin names show up black in the default theme
14625 Themes: don't show delete button for factory and downloaded themes
14364 Themes: dropdown controls in the playlist and piano roll turn black when switching themes
14585 Themes: HTML background color is not always updated when switching themes
14631 Themes: hue knob values are different from what's shown
14575 Themes: many controls turn black when starting in default theme
14627 Themes: mute lock icon in the mixer is the wrong color when starting with the default theme
14464 Themes: not all changes are reverted when the default theme is selected
14576 Themes: Play and Stop buttons in the toolbar have the wrong color when themed
14603 Themes: program starts slower when there are themes
14629 Themes: Record button has wrong color
14645 Themes: scrollbars on sheets have the wrong color
14578 Themes: song position slider has incorrect color in song mode
14589 Themes: Tests window has unreadable text in light mode themes
14630 Themes: text on tabs in the settings window is not the correct color
14367 Themes: the delete button moves around incorrectly when scrolling the theme list
14590 Themes: tool buttons in playlist and piano roll have wrong colors when switching to the default
14588 Themes: transparency of the piano roll window is incorrect when detached
14635 Themes: wallpaper is not set back to default when switching to default theme

(macOS)
14617 Options > "Manage plugins" doesn't do anything in macOS 10.15.7
14632 Riff machine UI broken
14622 Video and images don't work correctly on macOS 10.13, 10.14, 10.15
-
14612 Some native generator plugins can't be tweaked when using a custom theme
-
14677 Browser: the browser refreshes constantly

21.0 RC1 (2022/11/17)

Changes
14429 Added an option to the project window to move created files to the project folder
14522 Added a button to update languages to the General settings page
14524 Added an option to control if clicking an envelope editor (in a plugin) will focus it or not
14238 Added a macro to remove unused created files when a project is closed
14420 Added the mixer track name to effect plugin names in the performance monitor window
14554 Allow dropping multiple effect plugin presets on instrument track headers in the playlist
14353 Disable loop recording if the user starts recording from the wizard into an empty project
14409 Panels on the General settings tab can now collapse automatically
14474 Remember position and size of the More plugin window
14463 The new project dialog can now be shown only when creating a new project
13543 The recording wizard now adds an audio track when recording to the playlist
-
14442 Luxeverb: added a visual indication when limiter is active
6885 Maxx plugins will now show presets in the FL Studio folder as well as the user data folder
14473 Plugin Manager: remember the application window's position and size
14543 VFX Sequencer: changed the caption color for 'sequence' related options
14393 ZGE Visualizer: the preview window now supports 120 fps
14503 ZGE Visualizer: added two new effects: "Dubswitcher Smudge" and "Dubswitcher Solidify"
14547 ZGE Visualizer: new Dubswitcher effects: Dropshadow, Fast HSV, Field Generator, Inverter
-
14404 MIDI scripting: added a way to navigate browser tabs
14553 MIDI scripting: changed name of navigateBrowserMenu to navigateBrowser

14550 MIDI scripting: the Fire controller can now navigate between browser columns
-
14417 Browser: don't scroll back to the top when re-reading the structure
-
14268 Fades: moved the "Automatic crossfades" option to the Project settings tab
-
14530 Themes: added automatic download of theme updates
14541 Themes: .jpg files can now be used as thumbnails for theme presets
14536 Themes: theme presets in subfolders are now shown in the list
14465 Themes: the default theme now doesn't apply any tweaks at all
14301 Themes: the theme editor is now a tab in the settings window
Themes: various improvements

(Windows)
(14476 Added display of emoji characters in text

Bug fixes
(common)
14450 Assigning Audio Tracks from Playlist does not inherit color
14419 Can't drop multiple effect plugin presets on a mixer track
14479 Can't drop multiple effect plugin presets on effect slots
14206 Closing effect plugins brings mixer to the front
14508 Columns in the plugin performance monitor aren't sorted correctly
14496 Crash while changing settings in the merge rendering menu while it renders
14453 Creating or opening a project while recording crashes
14428 Ctrl + right-click drag on playlist track headers doesn't zoom but shows the popup menu
14498 Dragging audio clips from the picker panel to plugins replaces the sample opened in the plugin
14405 Folder names are not unique when creating new projects
10393 Histogram decay should not be linked to audio buffer size
14327 MIDI Out can't be loaded as an Instrument track
14483 News items have unreadable text
14425 Playback cursor in the channel envelope editor remains visible after previewing a note
14433 Playlist tracks are no longer selected after dropping files on a track header
14396 Project data folder save location is not remembered
14452 Project info is shown even though it's empty
14461 Recording doesn't stop when saving a project
14493 "Save to new project folder" doesn't always copy samples over into the new project
14388 The project dialog is not shown when using Save or Save As
-
14472 Control Surface: duplicated knobs don't remember their default value when settings are loaded
14458 DirectWave: samples are not loaded for some older packs
14520 Edison: EQ and Blur tools don't allow multiple selection of envelope points
14560 Edison: selection and zoom level reset after pressing accept in the sample properties menu
14492 Formula Controller: can't focus the info field when there's an error in the formula
14413 Frequency splitter: visual artifacts with spectrum display
14495 Maximus: can't select multiple points in the envelope
12460 Parametric EQ 2: moving band 7 level creates clicks
14466 Patcher: crash when opening the preset menu for some plugins
14551 Patcher: preset name is not shown when opening a plugin window with Alt + click
14475 Slicer: crash if the TS or PS sliders were tweaked and the slice get removed while playing
14549 Sytrus: the "enabled" state of articulators isn't right when changing the operators from the matrix
14494 VFX Sequencer: notes can't be removed in Poly mode
14317 VFX Sequencer: voices aren't released or killed when playing a looped pattern
14519 Wrapper: the option to allow processing keyboard input after the plugin is not saved correctly
14504 ZGE Visualizer: "Class not found" error when loading an effect
-
14552 MIDI scripting: NavigateBrowserMenu doesn't return correct node title in tree view mode
14411 MIDI scripting: UI functions that trigger hotkeys can interact with windows outside of FL Studio
-
14534 Browser: "Add tag" doesn't work when for multiple selection

14436 Browser: alternate tab size is not restored when the program restarts
14446 Browser: colors for special folders are not applied to subfolders
14457 Browser: crash when pressing enter in the search field when the browser is detached
14525 Browser: deleted project files are not removed from the browser
14397 Browser: dragging a plugin from plugin view leaves a gap at the top of the browser
14546 Browser: dropping a file on the browser in Tree mode will open the parent folder
14445 Browser: folder color is not applied to subfolders that have a custom color
14539 Browser: log files are included in search results
14487 Browser: plugin tags are not loaded when search indexing is off
14430 Browser: "Remove tab folder from tab" doesn't work on cloned ALL tabs
14489 Browser: subfolders are not removed from the cache when the parent folder is
14421 Browser: tabs don't remember the new text size if you change it with Shift + mouse wheel
-
14449 Fades: channel pitch is handled incorrectly (automation and manual)
14426 Fades: deletion of painted clip resets gain to previous value
14548 Fades: the hotkey for "Paste value" in the gain popup menu is inconsistent with other menus
-
14502 Themes: mixer insert numbers and labels are not visible in light or dark themes
14506 Themes: wrong color for automatically named clips
14415 Themes: black background on hint region's waveform view
14366 Themes: blue buttons on the mixer should use the highlight1 color
14469 Themes: colored text in Audio options is not themed
14402 Themes: disabled menu items are not visible for light themes
14468 Themes: Hue tint wheel seems to change to the wrong rail color when tweaked
14400 Themes: the envelope editor grid in automation clip channels is incorrect
14424 Themes: the mute button in the plugin window is the wrong color
14398 Themes: the note color button in the piano roll is incorrect after selecting a theme preset
14401 Themes: the velocity mapping windows in MIDI settings are not themed

(macOS)
14500 Crash when the program is closed with Cmd + Q
14394 Help doesn't work for plugins with spaces in the name
14439 Left mouse button always deletes after pressing fn or control key in the channel rack
-
14391 Video Player: plugin doesn't work at all
-
14422 Browser: .nfo files are visible in the browser when they shouldn't be
14516 Browser: there are duplicate folders when using threaded search

20.99 beta 8 (2022/10/24)

Changes
14274 Added more control over when the project window is shown
14262 Added new operators and functions to formulas: fmod, shl, shr, Fold, Warp and Map
14335 Message windows that show a list will resize up to the height of the screen
11971 Renamed the option "Don't initialize controls automatically" to "Initialize controls automatically"
14318 Show a floating hint when a plugin replaces a channel sample
14275 Show the project window when using File > Save as
2632 Store recorded, rendered and sliced samples in subfolders in the project data folder
14282 The channel rack shows the first selected channel when selecting linked channels in the mixer
-
14286 VFX Sequencer: allow drawing of lines in velocity mode
14337 VFX Sequencer: the preview keyboard can be hidden by resizing the plugin window
14359 Wrapper: added an option to disable keyboard handling by the host if the focus option is on
14375 ZGE Visualizer: added a preset for "Spotify Canvas"
-
14253 Browser: added an option to completely disable search cache
14346 Browser: added "paid" and "free" factory tags in library view
14351 Browser: added multiple selection support to the Plugin view

13955 Browser: changed indentation of items in the browser
14360 Browser: images resize to fit the available space in Library view
-
14100 Themes: added clip color override - reserved color palette can now be used for new playlist clips
14371 Themes: added playing step LED style to the palette editor preview
14369 Themes: apply contrast changes to grid highlight colors
14100 Themes: step color editor is improved
14100 Themes: highlighted controls use the highlight colors by default
14100 Themes: menus and text on controls has improved background contrast
14100 Themes: presets now include grid backgrounds, note colors and wallpaper

Bugs
(common)
14343 Advanced Fill tool in the channel rack sometimes shows on the wrong screen
12307 Can't unsolo sidechained mixer tracks when the source is locked
14322 Checkboxes in the plugin performance monitor are in the wrong location
14307 Click-and-hold doesn't work while cell snapping mode is selected
14386 Dropping files horizontally on a playlist track header adds them in the wrong location
14344 Dropping multiple plugin presets on a playlist track header doesn't load all plugins
14179 Envelope ADSR nodes can be set to Decay and Sustain at the same time
14385 Incorrect message shown when downloading MIDI scripts fails
14361 Previewed samples are copied into project folders and they shouldn't be
14320 Resizing clips with the slip tool active and holding Shift doesn't work
14368 Switching to performance mode doesn't disarm audio tracks
14277 Tempo automation causes the program to freeze
14324 The "Metronome Track" option in Audio settings can't be set to mixer tracks 105 to 125
11296 The width of the toolbars is limited to 6000 pixels
-
14308 Diagnostic: doesn't work for FLKey customers
14328 Diagnostic: Windows 11 is detected as Windows 10
10175 Edison: playback glitches when the selected range is changed during playback
14321 Granulizer: different sound than in FL Studio 20.5 when time loop is enabled
14313 Maximus: randomly reverts to trial version
14319 VFX Sequencer: gate values are not changed when selecting presets
-
14374 Browser: cache contains incorrect data when using multiple instances of FL Studio
14352 Browser: crash while opening FL Studio
14305 Browser: dropped samples are added in the wrong order
14365 Browser: It's not possible to drag presets when using the "Tree" or "Samples" layouts
14357 Browser: middle-click doesn't select a node
14325 Browser: preview restarts when the mouse button is released
14300 Browser: scrolling in the picker panel opens the browser when it's set to hide automatically
14342 Browser: the Library tab's secondary view is not filled initially
14306 Browser: when detached, the browser window resizes after clicking on the selected tab
-
14311 Fades: "Create clips with manual fades" option is ignored for the Cut tool and Consolidate
14290 Fades: rendering track adds extra samples to the audio file
-
14100 Themes: incorrect color issues fixed in various places throughout the program
14362 Themes: the browser is not completely themed
14363 Themes: the FPS icon in the toolbar is not themed correctly
14303 Themes: new sampler channels don't use the themed channel color

(macOS)
14309 Crash when using a MIDI controller [Apple Silicon]
14334 Opening any website shows "File not found"
-
14304 Edison: a "loading" windows reappears after closing
14331 Wrapper: Kilohearts AudioUnit plugins do not show any automatable parameters

20.99 beta 7 (2022/10/11)

Changes
14245 Don't rename a channel if a plugin asks this and the "Auto name channels" option is off
9620 The trial version now shows a hint when using features that are limited in a specific edition
-
14259 VFX Sequencer: use Alt + Click to reset steps to their default value
-
14261 Themes: added an A/B switch to the theme editor to compare changes with the original look
14216 Themes: changed the ranges of some of the tweak controls
14266 Themes: the mixer meter colors can now be defined separately

Bugs
(common)
14252 Channel is assigned to a new mixer track when the Track button in channel settings is clicked
8907 Ctrl+A selects only muted notes in front of unmuted notes
14270 Moving many audio clips at the same time is much slower than it was before
14254 Select > "Select overlapping notes" in the playlist's menu has the wrong name
11620 The "Auto locate" option in the piano roll's channel dropdown isn't saved
14267 The scrollbar in the general options page no longer functions
-
14249 Luxeverb: the Mod frequency control shows the wrong hint
14257 VFX Sequencer: dragging values stops when the cursor moves outside of the plugin window
14264 VFX Sequencer: no value is shown for Scale Step when it's set to -1
14263 VFX Sequencer: visual artifact when the grid is less than 8 steps wide
14269 Wrapper: space bar doesn't work when "Keyboard focus" is on and the plugin doesn't use it
-
14281 Browser: can't drag multiple selected items out of the browser
14283 Browser: can't move around using the arrow keys when the browser is filtered
14260 Browser: can't deselect some items after selecting multiple items
14295 Browser cache: crash when there are folders with commas in the name
14256 Browser: crash when clicking "More" to add a plugin while the cache is reading the plugin list
14287 Browser: crash when scrolling sample view
14271 Browser: the "Edit in" options for sample items don't work
-
14272 Fades: Incorrect tension point computed if fade in or fade out is not wide enough
-
14285 Themes: audio scope on the toolbar has the wrong color
14255 Themes: mixer cables have yellow tint when using custom highlight color
14284 Themes: mute button in the channel settings window has the wrong color when themed
14258 Themes: resizing the theme selector window can lose the adjustments panel

20.99 beta 6 (2022/10/04)

Changes
10302 Added a "new project" window that's optionally shown when a new project is created or saved
14220 Adjust the height of the settings window so it fits on screens with a low vertical resolution
14019 Alternate undo is now on by default (when installing on a new computer)
14168 Identification of MIDI devices is now delayed until scripts have been downloaded a first time
10374 Provide more information about values in the "Type in value" window
14023 The "add instrument track" menu no longer shows items that can't be added as instrument tracks
14013 The piano roll of the selected channel is opened when double-clicking on an empty pattern clip
14083 The channel menu has a new "Patcherize" item load the channel's plugin in Patcher
6834 The channel rack now scrolls when moving a channel outside of the visible range
6442 The mixer window no longer automatically opens when a new audio or instrument track is created
13980 The settings window has been redesigned to allow long localized text

14101 The "New from template" menu updates when templates are added and removed
-
FL Studio Mobile updated to v4.1.4 (https://support.image-line.com/redirect/flstudiomobile_changelog)
14050 Maximus: grid lines and labels are not visible enough
7911 **NEW** VFX Sequencer plugin based on BlueARP.
14084 Vintage Chorus: added context aware type-in value support
14174 Vintage Phaser: added noise gate parameter and control
14205 Vintage Phaser: the order of the plugin's parameter has changed (automations will be affected!)
14126 ZGE Visualizer: added new effect - Dubswitcher AlphaKey
14204 ZGE Visualizer: presets that use HUD Text can now locate fonts outside the font folder
14058 ZGE Visualizer: added audio generator effect (Windows only!)
-
14085 MIDI scripting: added getPerformanceModeState function
14088 MIDI scripting: added functions to add links to controllers
14211 MIDI Scripting: added support for navigation between browser columns
-
13735 Browser: added an option to remember individual tab sizes
13143 Browser: added a switch in the search field to filter on items in the current folder only
14169 Browser: added multiple selection of items (using Shift+Click and Alt+Ctrl+Click)
14040 Browser: added the "Type to filter" option to determine if typing a letter filters or selects items
14107 Browser: improved the memory and disk size of the browser cache
13929 Browser: items in the History folder are sorted from old to new again
14055 Browser: select the first folder when searching in views with multiple columns
14068 Browser: show images as soon as they're downloaded instead of waiting for all to be available
14177 Browser: show more information about plugins in the plugin database
14207 Browser: start playback from the cursor position on right-click
-
14129 Fades: Edit > "Automatic crossfades" in the playlist menu is now saved with the project file
14021 Fades: fade editing mode is now enabled by default (when installing on a new computer)

Bug fixes
(common)
14031 "Assign to new Instrument track" crashes when there are already 500 tracks in the playlist
14042 Can't trigger notes in FLEX with the typing keyboard when the mixer window is focused
14176 Changing time signature in some demo projects takes too long
14108 Channel name changes when replacing and "Auto name channels" is disabled
14012 Crash when working in the piano roll
14010 Deleting an audio track in the playlist doesn't completely reset the associated mixer track
14130 Dropping samples on the playlist while holding Shift creates clips named "Audiotrack"
14073 Grouping playlist tracks with the mouse happens too quickly when zoomed in vertically
13885 Make unique and undo/redo result in invalid clips and crashes
14137 Mixer track delay button is blue instead of yellow when a source channel has delay
14163 Notes are displayed in the wrong position when reopening the pianoroll at maximum zoom
14039 Pressing Shift+S with the mixer focused doesn't solo the current mixer track
14173 Program freezes for an extended period when changing the time signature
14188 Program freezes when loading a project is aborted by holding the Escape key
14132 Program shows "Loading" hint while tweaking the precomputed channel effects
14076 Program sometimes freezes when opening a project with a different time signature
14136 Quick legato lengthens notes to the next bar when there are notes before that time
14037 Redo of a recorded take doesn't restore the recorded clip's color
13841 Sample start doesn't work correctly when trim is active
11105 Samples with a path and filename of 256 or more characters aren't previewed or loaded
14053 Some actions on the menu of clips in the playlist affect clips outside of the view area
14030 The associated playlist track's color is not updated when changing a channel's color
14024 The hint shown for the position under the mouse cursor in envelope editors is incorrect
14186 The peak meter of the "Current" mixer track freezes when switching to an unused track
14016 The playback indicator in the automation clip window flickers when editing during playback
14017 Undo of the creation of an automation clip doesn't remove the clip's initialized value
-
13727 3x Osc: the sampler and envelop tab values are not remembered when patcherizing the plugin
14018 Control Surface: digit control doesn't shows --- instead of -1

14051 DirectWave: bit depth of saved samples is set to 8 bit by default instead of 32 bit
14054 Luxeverb: black thumbnail after adding it to the plugin database
14029 LuxeVerb: spectrum and envelopes don't scroll with the same speed
14164 MiniSynth: plugin is louder than than in old versions of FL Studio
14135 Soundfont Player: maximum polyphony cuts new notes instead of old ones
14190 Vintage Phaser: the plugin doesn't inform the host about latency
14116 Wrapper: VST3 plugins don't receive the correct note id for MIDI note on messages
-
14043 Browser: "ALL" tab can be moved around but should be fixed in place
14096 Browser: clicking on items reacts slower than in the old browser
14032 Browser: crash after clicking on empty area in tags panel
14052 Browser: crash when selecting an item beyond the last search results
14224 Browser: crash when showing a hidden tab
14033 Browser: crash when the last tag for an item is deleted
14091 Browser: downloads are shown as finished when they failed to download
14187 Browser: filenames are too short if there are periods in the name
14165 Browser: file sizes smaller than 1 KB show ".00" after the value
14045 Browser: "Frozen" state of a tab can be reset by using "Revert to frozen state"
14075 Browser: parameters in the Current Project tab don't light up when a plugin control is tweaked
14192 Browser: sample preview doesn't start when a node is selected with the up/down keys
14094 Browser: samples are painted outside of their view area when they exceed 0 dB
14038 Browser: sort by date doesn't work
14242 Browser: switching views is slow
14222 Browser: tags are not always stored correctly
13145 Browser: the items column is not selected when using arrow keys in the folder column
-
14077 Fades: adjusting gain doesn't pause when starting from 0 dB and moving up
14122 Fades: "Auto name clips" creates crossfades when "Automatic crossfades" is off
14148 Fades: crash when editing fades on a looping clip
13741 Fades: crossfades can't be edited when the first clip has another clip over it
14128 Fades: fade handles remain visible after using the Chop tool
14020 Fades: fade in and fade out overlap when time stretch is applied to clip
14149 Fades: gain tags are not visible when starting with animations set to "Don't distract me"
14011 Fades: old style declickers are not shown correctly when gain is zero
14046 Fades: zero-length fades are actually one sample long

(macOS)
14027 Crash using the advanced fill tool
14110 Crash when using FL Studio as a plugin
14034 The wrong folder is opened when using "Locate file" on a demo project in the browser
13880 The program is scaled incorrectly after disconnecting a secondary screen
-
13824 Diagnostic runs in Apple Silicon mode when FL Studio is set to Rosetta mode
14036 Luxeverb: graphical corruption around the borders of the plugin window
14120 Newtone, Newtime: spacebar doesn't work when the plugins are focused
-
14119 Browser: FLEX downloads fail

20.99 beta 5 (2022/08/25)

Changes
13939 Added a + button to the playlist to quickly add instrument and audio tracks
13799 Added a button to the automation clip settings window to convert automation to events
13833 Added "Don't show this in the future" to warnings about approximated automation merging
13868 Added support for multiselection to clip chopping
11644 Added track names to the warning that's shown when deleting tracks
6749 Automatically scroll the piano roll while transposing notes
8089 Deleting overlapping clips and notes will not delete all of them at once
7987 Increased precision when editing voice properties with the mouse wheel in the piano roll

13879 Lossy merge is now allowed for automation clips using LFO mode
12361 Clips added for new audio tracks are placed at the playback position
13983 Clips added for new instrument and audio tracks are placed inside the time selection, if any
13834 There are now separate options for the browser and metronome mixer track in Audio settings
-
13711 New LuxeVerb plugin
12760 New Vintage Phaser plugin
13961 FLEX: the default value for the master output volume control is now 100%
FL Studio Mobile updated to v4.0.27 (https://support.image-line.com/redirect/flstudiomobile_changelog)
13865 ZGE Visualizer: added a Surface tab for easier customization of presets
-
13747 Browser: .fxp, .fxb and .vstpreset files are now tagged as plugin presets
13724 Browser: added a hint when changing the preview volume slider
13811 Browser: added an option to move browser tabs
13924 Browser: added a way to remove tags
13827 Browser: added factory tags in the Library tab
13814 Browser: items in the library view can now play a demo audio file
13960 Browser: starting playback from a specific position is now done with Shift + Click
13929 Browser: undo items are now sorted with the most recent at the top
-
13342 Fades: added temporary previews of fades and gain
13897 Fades: added a popup menu to the "Show fade editing controls" button
13896 Fades: added an option to snap by default (off by default), reverted by holding Alt
13892 Fades: added Shift+F to toggle the "Show fade editing controls" button
13832 Fades: add modifier key information to all hints shown for fade controls
13873 Fades: Alt+Click no longer resets fades

Bug fixes
(common)
13846 Approximated merge can produce shorter results than expected
14005 Audio recording creates an undo entry even when it doesn't record anything
13898 Automation clip chopping doesn't work with cut clips
13900 "Beat shuffle" doesn't work with chopped automation clips
12629 Channels restored after undo of channel deletion aren't in the correct filter group
10756 Clips aren't deselected when they're ungrouped
13954 Clips are pasted past the playhead position when they overlap existing clips
13913 Clips disappear when chopping clips using transient slicing on short audio clips
11518 Clips moved with Shift+up/down will stop moving when they're put into a hidden group
13978 Cloning an instrument track doesn't automatically select the associated channel
13858 Colors of mixer tracks are less bright than before
14007 Crash when starting FL Studio for the first time after a clean install
13919 Double-click on a plugin in the More... window also clicks on whatever is behind the window
13823 Empty tracks in the playlist when multiple files are dropped on a track header
13889 Memory usage indicator in the toolbar is red
13860 Mixer tracks can't be muted when associated with an audio track
13856 Mixer track text and icons are the wrong color
13917 Random value generator is not reset reset when opening another project
10332 Right-click + scroll doesn't work when the playlist is detached
13957 "Save as" window shows the wrong folder when setting a project folder for an unsaved project
5618 Selecting clips with the mouse also selects clips in hidden tracks
12003 Selecting plugins by name in the "Add plugin" menu sometimes selects hidden items
13843 Steps that were added manually in the Advanced Fill tool are lost when it's closed
14010 The audio input of the associated mixer track is not reset when an audio track is deleted
9867 The automation preview in the picker panel doesn't update after undo
13857 The channel menu color for plugins with custom colors is incorrect
13938 The playlist track header's menu doesn't open when the Select or Zoom tools are active
13930 The selected background is not remembered when the program is restarted
12813 Visual glitch in piano roll when copying the notes for a channel
-
13908 3xOSC: LPx2 filter doesn't work correctly

13828 DirectWave: missing files are not always found because an incorrect path is used to search
13877 Edison: audio generation scripts don't always generate a full length sample
13894 Edison: error when executing a script on an empty sample
13909 Edison: right-click on the save button doesn't default to the .wv file extension
13991 FLEX: animations are slow when the Ultrasmooth setting in FL Studio is off
13931 FPC: hint for keyboard button is incorrect
13871 Fruity Slicer: sample filenames are not always saved correctly
13920 Harmor, Ogun, Sytrus, Love Philter: delete key doesn't work in the info edit
13921 Patcher: new modules are sometimes added outside of the map
13895 Patcher: can't use mixer tracks before the plugin's track as inputs for the "To FL Studio" module
13532 Soundfont Player: looped presets starting with "4000" will produce non-stop sounds
-
13928 Scripting: ui.ShowWindow doesn't work when used to show the browser
13927 Scripting: ui.getVisible crashes when the piano roll is hidden
-
13899 Browser: can't toggle the browser's visibility when the Library tab is selected
13940 Browser: restarting stopped downloads shows progress on multiple entries in the list
-
13952 Fades: alt+click on opposing tension handles resets the crossfade tension
13962 Fades: automation clips are incorrectly highlighted
13953 Fades: automatic crossfade is not applied after paste with Ctrl+V
14004 Fades: crash when adding pattern clips
13822 Fades: crash when "Show fade previews" and "Show gain previews" are off
13881 Fades: fade controls don't always show when they should
13941 Fades: fades don't spring back during editing
13912 Fades: fade handles don't disappear when mouse leaves the clip area from the top
13942 Fades: fade in and fade out may end up overlapping
13830 Fades: fade length doesn't update correctly when the audio clip is stretched and tempo changes
13944 Fades: fades spring back incompletely during clip resize
13999 Fades: can't adjust the tension when its near the gain handle
13926 Fades: incorrectly named "Reset fade in..." menu
13906 Fades: manual flag does not override old declicker
13974 Fades: mouse cursor jumps after invoking a popup menu option
13925 Fades: reset menus apply to multiple clips when they overlap but aren't selected
14001 Fades: reset menus apply to wrong clip when clips overlap

(macOS)
13866 Bridged plugins hang FL Studio
-
13910 Browser: sample preview with up/down keys doesn't work after favoriting a file
-
13850 Fades: crash on Apple Silicon when the mouse is over a clip with fades enabled
13958 Fades: tension and gain editing sometimes reverses mouse direction

20.9.2 macOS bug fix update (2022/08/18)

Bug fixes
(macOS)
12683 Can't type a name when saving a toolbar preset
13611 Cmd + C shortcut to copy text doesn't work in plugins
13612 Crash if screen turns off during render
13684 Crash when pressing a key while a menu is open
13750 Crash when pressing any key when the mouse button is down on a plugin window
13506 Crash when the user data path is incorrect
12968 Crash when unplugging headphones
12632 Keyboard doesn't work in the message shown when dropping files on a playlist track header
13272 Moving clips with the trackpad has random results
13329 Program crashes on startup because of incorrect GUI scaling
13398 Scrolling text animations are shown underneath modal windows

13469 Shift + scroll is inverted in the playlist and channel rack
13466 Tab key doesn't always work in plugins
13000 The mouse position on a duplicated second screen is incorrect after renaming something

20.99 beta 4 (2022/07/19)

Changes
13034 Added an option to add dropped sample files sequentially in the playlist
4847 Added an option to render all selected tracks to wave files (in the mixer menu)
10012 Added "Select all" menu (Ctrl + A) to the mixer to select all tracks
13502 Automation can be merged with an approximated curve when precise merging isn't possible
10012 Bypassing effects now works for all selected mixer tracks
13651 Enabled newer common dialogs
12184 Pasting of clips and notes now happens at the play position (when possible)
13359 Relocate the play position to any position in the playlist, piano roll and event editor
13798 The "Add target links" button in automation clip settings will pulse while it's active
5534 The recent project list in the File menu now shows up to 50 items (in a sub menu)
5479 You can now chop pattern and automation clips
-
13556 Convolver Edison, Slicex: added Python audio scripts to replace removed PaxCompiler scripts
13762 ZGE Visualizer: added blend parameter to "TextDraw" effect
13751 ZGE Visualizer: added a toolbar button as a shortcut to show transparency
13710 ZGE Visualizer: added export to the APNG image format
13746 ZGE Visualizer: .jpeg extension is now the default when saving bitmaps
13807 ZGE Visualizer: you can now select what buffer to show in the preview window
-
13683 Browser: added a "Frozen" option to tabs
-
13769 Fades: added an option for all new clips to have manual fades by default
13622 Fades: added Copy and Paste items to the fade handle popup menu
13806 Fades: added a menu option to show or hide gain preview on audio clips
13805 Fades: added multiple modes to edit crossfade tension
13776 Fades: crossfade tensions now mirror each other to preserve volume
13621 Fades: moving fade handles now snapes to the grid
13663 Fades: show the gain value instead of applying the gain when visual preview of fades is off
13535 Fades: support for high visibility mode

Bug fixes
(common)
13810 Bypassing effects in the mixer isn't undoable
13685 Can't select text from right to left in text fields
9380 Can't use Windows Explorer while opening a dropped project file
12630 Changing the icon of multiple selected instrument tracks doesn't change the icon of all tracks
11640 Channel rack is focused after editing a pattern with "Edit patterns in piano roll" selected
11200 Channel rack width decreases when loading a project where channels are looped
13788 Choices in the playlist Edit > "Drop audio on track headers" menu don't show as radio items
9400 "Close all windows" doesn't close the channel rack
13797 Crash while starting the program
11065 Double right-click + drag to mute notes doesn't work with "Paint in drum sequencer mode"
13738 Dragging the borders of notification panel creates visual artifacts
13579 Dropping a mixer state onto a playlist track header applies the state to the master mixer track
13729 Dropping a plugin on a PL track header to create an instrument track creates 2 undo entries
7032 Drop location for samples in the playlist is not removed after the drop
6199 "Dump score log to selected pattern" dumps notes that are too old
12758 Filter group in the channel rack changes when changing the sample in an audio clip channel
13291 It's possible to add MIDI Out plugin instances as instrument tracks
6988 Loop controls in the channel rack are not always shown when they should be
10032 Magic lasso can't select zero-length notes at the start of the piano roll
12268 New automation clip windows use the size of the previously opened plugin window

11566 New clips are blue instead of red after clicking on a grouped clip
3628 Painting a new clip after resizing a clip doesn't use the new size
13780 Piano roll doesn't update while recording notes in playlist mode
13671 Pressing F12 doesn't close windows for plugins in Patcher
13717 Redoing "create instrument track" can leave the instrument's channel's mixer track unlocked
13718 Redo of adding an instrument track doesn't restore the automatic pattern name
13766 Rendering patterns as audio clips allows only 32 bit for the rendered files
13726 Resizing the browser sometimes shows a dark line on the background
13742 Selected undo item is incorrect after undoing to the addition of an audio clip
13664 The "Demo projects" test sometimes show missing sample warnings
5573 The Envelope / LFO target tab in channel settings reverts to Volume when the window is opened
12374 The hint for automation clip editors shows a different position than the editor's bar numbers
13694 The margin between the menu border and items is inconsistent for some animations settings
12270 The question mark in the Instrument and Audio track deletion message is in the wrong place
12199 The view area in the playlist and piano roll doesn't move along when shifting clips to the left
13607 Undo history is broken when undoing and redoing several batch undo entries at once
13583 Undo of dropping multiple samples on a PL track header doesn't work
11627 View > Arrange windows > Desktop (default) doesn't work correctly when scaling is at 150%
-
12748 BassDrum: at a 96KHz sample rate some notes are not played
13740 Diagnostic: empty crash logs display random text as content
13722 Edison: Ctrl+Z doesn't work in 20.99 beta versions
13625 FL Studio VSTi: plugin freezes during a plugin scan
13728 Fruity Limiter: latency is reported when attack is at zero
13707 Fruity Limiter: the sidechain value is incorrect when opening from FL Studio 20.9.2
13778 Patcher: published parameter names aren't updated when the name of a module changes
13629 Plugin Manager: closing the program during a scan doesn't work
13757 Sawer: crash when loading CC map file
13779 ZGE Visualizer: export sometimes freezes when using "Sync video with song position"
-
13773 Browser: auto-hidden browser shows when using multi-link to controller
13661 Browser: crash when closing the program after interaction with sample preview
13666 Browser: crash when switching tabs while loading library images
13693 Browser: new search doesn't work in user defined tabs
13763 Browser: not all YouTube buttons for online content work
13446 Browser: sample preview keeps tempo after playing along with the project
13689 Browser: search results include files and folders that are not visible in the browser
13709 Browser: switching browser layout modes forgets the focused node
13721 Browser: the grayed out Fav tag is clickable for items on the Favorites tab
-
13706 Fades: audio in the playlist is stretched when the stretch button is not pressed
13682 Fades: automatic crossfade is not applied when using Shift + up/down to move a clip
13730 Fades: automatic crossfade is still active when one of the fades is deleted
13755 Fades: crash when editing a crossfade
13702 Fades: crash when quickly shortening a clip with fades during playback
13737 Fades: crossfades are not updated when deleting a channel
13764 Fades: display inconsistency when "Show fade preview in audio clips" is off
13770 Fades: don't fade handles when the track is in collapsed state
13804 Fades: error when the tension is near zero
13731 Fades: fades don't properly update when clips are time stretched via the channel window
13816 Fades: fades for all audio clips are shown when the cursor is over one audio clip
13627 Fades: fade out added while playing back can only be heard the second time
13680 Fades: gain fade in animation is incorrect sometimes
13675 Fades: group edits only affect visible items
13697 Fades: incorrect fade in when the clip starts at an offset
13662 Fades: newly added unique clips should always have default fades
13736 Fades: render and replace of a channel produces an audio clip with no audio
13623 Fades: resizing a clip with fade out incorrectly applies the effect in real time
13705 Fades: Shift+M doesn't toggle the new stretch button in the playlist
13699 Fades: strange snap behavior on short clips
13539 Fades: tension editing cursor jumps back to its starting position

13602 Fades: when a clip is split while playing back, gain may not update in realtime

(macOS)
13033 The filter field in the "More plugins" window only allows one character to be typed
13250 The green drop indicator remains after moving a dragged file over the channel rack
-
13468 Plugin Manager: moving the mouse selects entries automatically after clicking through sections

20.99 beta 3 (2022/06/21)

Changes
3343 Added fade in, fade out and gain to audio clips
13463 Added an option to auto save every minute
13460 Added an option to suppress error messages while loading a project from the command line
12946 Added downloadable items to the browser with a list of downloads in the news panel
13380 Added time information to all entries in the startup log
13481 Added the option "Put undone recordings in the recycle bin"
11235 Lines in the automation envelope editor are now thicker
2684 The pattern menu now shows options on the left side when there are more than 150 patterns
2813 Show an error message when project file can't be loaded from the command line
13491 The rendered file is selected in the system file browser when opening the destination folder
12548 The selected PL track is now changed when dropping a sample or cloning a track
13531 The splash screen is hidden when an audio device shows an error during startup
13524 The startup project is reset to the default FL Studio crashes while opening it
7145 Typing a long and short space character is now done with Alt+Ctrl+Space and Alt+Shift+Space
11288 Various changes to the code that renders to audio files
-
2593 Browser: added an option to default to "Full sample preview" or not
13112 Browser: MIDI files are now tagged as "score"
13490 Browser: added an option to locate a file in the system file browser
13453 Browser: browsing through search results is closer to how it was in the old browser
13415 Browser: clicking on a sample in "sample view" now previews it
13412 Browser: show more information for samples in the preview panel
13470 Browser: search is now possible while the browser scans for new files
13431 Browser: Score and MIDI preview show everything at once (no need to scroll)
13367 Browser: "Duplicate" menu option is now called "Clone this tab"
13351 Browser: added "Show icons and text on tabs" option
13146 Browser: search results should also show folders with a matching name
-
13475 FLEX: added an undo entry when switching or randomizing the preset
FL Studio Mobile updated to v4.0.19 (https://support.image-line.com/redirect/flstudiomobile_changelog)
13393 Multiband Delay: each band now shows how the Scale control affects delay times
13493 Wrapper: added an option to control if the host can handle Ctrl+Z key presses to undo
13449 ZGE Visualizer: supports separators between parameters in effects
13408 ZGE Visualizer: added custom effects to zipped projects
13370 ZGE Visualizer: support the touch controller window in the "Add window" list

(Windows)
13107 The FL Studio installer will no longer set write permissions on the install location
13580 The FL Studio installer will no longer associate the program with .flp files in beta builds

Bug fixes
(common)
13376 "-" at the start of an audio device name is displayed as an unclickable caption item
10531 Audible clicks at the end of a sample after adjusting its length
10149 Batch rendering a project file with a period in the name removes any text after the period
11652 Consolidation of multiple PL tracks doesn't work if there are tracks without any data
13518 Crash after converting an empty event to automation clip

13599 Crash when a plugin menu is open if the plugin database is missing
13413 Crash when grouping two patterns in the playlist
13379 Crash when loading the "9loops - Keep It Simple" demo project
13236 Crash when scrolling the playlist
13578 Ctrl + drag to select items in the picker panel doesn't work well for patterns
13525 Ctrl + right mouse button doesn't "zoom to all" in the piano roll when there are only C0 notes
13462 Cursor can jump outside of the selection when "Quantize song jumps" is enabled
11884 Disabling "save tempo information" in the render window has no effect on MP3 files
13454 Exporting to MP3 misses the first few ms of sound
13510 Folders called "Voice" in the Effects part of the plugin database aren't shown in the favorites list
12812 Graph Editor: adjusting "Shift" mutes audio on another channel
13596 Incorrect text in the message shown when the Plugin Manager is opened for the first time
13292 Jitter in the channel arpeggiator
12996 Linked mixer faders behave oddly around -inf dB
13519 Memory leak when using move up/down for a pattern that contains a tempo event
10250 Merging automation clips doesn't create a unique name for the new clip
13023 Mouse cursor changes shape rapidly while loading projects/presets
12016 Note properties in the piano roll do not reset to default when starting a new project
11695 Partially exported files exist after export is canceled
13451 Pasting notes and events depends on the project PPQ
13350 Playlist selection doesn't loop when "Quantize song jumps" is used
13396 Potential crash when latency correction for automation is applied
13494 Potential freeze when stopping preview of samples
8015 "Quick fade out" in sampler channels is incorrect if the sample is longer than ~47 seconds
13526 Redoing "merge automation clips" doesn't restore the automation's target links
13598 Redo of channel deletion changes the order of channels in the Channel Rack
12458 "Render to wave files" doesn't recolor the exported audio clip to the color of the mixer track
13134 SMP START doesn't work properly when TRIM is used for sampler channels
13386 The graph editor remains on screen when the channel rack is detached and F6 is pressed
11937 The latency button in mixer tracks doesn't always update properly
13548 The "More" plugin window doesn't finish loading when there are no installed plugins
13620 The playlist is updated too often
10900 The rendered file format is always the last one you chose when exporting to Soundcloud
13570 The value of the target control is changed after pressing "animate target link parameter"
12494 "Tools" > "Macros" > "Cancel recording" doesn't work
10070 Transposing in the piano roll and playlist doesn't work when the slice tool is active
13438 "Type in value" doesn't support entering a value in percent
13411 Typing words in a name edit window sometimes deletes the first word
11889 Zoom out is very slow on the right side of the scrollbar in the piano roll and playlist
-
13435 Browser: all items are shown when there is text in the search field and tags are not shown
13450 Browser: can't open folders in search results
13936 Browser: changing zoom doesn't work correctly while in search mode
13416 Browser: clicking anywhere on the right side of an item favorites it
13409 Browser: clicking on a specific point in the search panel will hide the panel
13434 Browser: crash when searching the Starred tab without items
13295 Browser: dragging a sample from the browser to the playlist sometimes opens the wrong sample
13373 Browser: duplicate entries are shown
13485 Browser: duplicate entries in search results
13448 Browser: favorite star graphic doesn't resize when item height changes
13443 Browser: file extensions are shown in the "Samples" layout when "Show file extensions" is off
13391 Browser: folders under the User Data path aren't always shown correctly
13429 Browser: hovering over a name that's longer than the browser width doesn't show the full name
13410 Browser: icons of subfolders don't automatically update when changing the icon of the parent
13115 Browser: "Open in new Fruity Slicer channel" option doesn't work
13248 Browser: sample preview volume is different after restart than when resetting it with the mouse
13555 Browser: sample view refreshes when tweaking plugin parameters
13424 Browser: open folders inside the User Data folder are not restored after restart
13457 Browser: scrolling patterns in the picker panel opens the browser if it's set to hide automatically
13688 Browser: search doesn't work when "Show folders in search results" is off

13859 Browser: Searching for tags that contains spaces will add tags to tag list
13356 Browser: "Show only one folder content" is reset when using tags
13246 Browser: there are invisible tag buttons
13111 Browser: the selected tab and its state are not remembered when reopening the program
13353 Browser: unfavoriting an item on the Starred tab doesn't remove it from the list
13131 Browser: .7z files are shown when option "Show unknown file types" is off
-
13476 3x Osc and other ex-hybrid plugins don't have the Set > x step menu items
13477 3x Osc: clicking on a custom sample doesn't open a file picker window (in Patcher)
13624 FL Studio VSTi: missing file error during plugin scan
13566 Frequency Splitter: mouse position on releasing red graph is wrong
13439 Gross Beat: latency is not reported to the host
13216 Harmor: pitch mapping breaks in some cases
13428 Patcher: deleting a Control Surface instance causes the order of the remaining tabs to change
13565 VFX Keyboard Splitter: multiple selection doesn't work
13565 VFX Keyboard Splitter: the last point's horizontal position is not locked
10615 Voltage Controller: extra outputs send a full DC offset when they're not visible
13419 Wave Candy: high cpu usage after loading a project with the OSD hidden
13467 Wrapper: communication with bridged plugins can crash
13545 XY Controller: value goes out of bounds when using the joystick
13544 XY Controller: "enable joystick" control never disables the joystick
13546 XYZ Controller: joystick isn't recognized
13613 ZGE Visualizer: delay during startup because of "locating (none).zgeproj" message
13597 ZGE Visualizer: sometimes it crashes when saving a image

(macOS)
13405 The internal tests don't finish
13218 The mixer shows the inputs and outputs of the default device when another device is selected
-
13387 Browser: crash when loading an MP3 file in the browser preview
13369 Browser: Opt + left click doesn't preview a sample that's not selected
-
13395 Edison: Blur sometimes produces garbage output on Apple Silicon

20.99 beta 2 (2022/05/07)

Changes
13222 Add an option to set the behavior of a pen's secondary button
13098 Changed the automation clip channel's envelope grid division to 4
13124 Crash logs now show the Windows version
12700 Improved cpu usage of the mixer
13309 Opening .m4a audio files is now possible
13096 Run tests asynchronously
13073 Show note activity visually on the touch controller
-
13004 Edison: added multi selection to the envelopes
13348 Gross Beat: new "Juggling Science" preset
12688 New Multiband delay plugin
12925 Soundfont Player: added a "Program mode" option to determine how patches are triggered
13280 ZGE Visualizer: added new post-process effects from Dubswitcher
-
13118 Browser: added a "favorites" tab
13122 Browser: added an option to show the search panel at the top
13142 Browser: focus the search field when the user starts to type if the browser is focuses
13214 Browser: improved tag management for files
7334 Browser: improved search speed and responsiveness
13140 Browser: moved menu items related to specific tabs to the tab menu
13119 Browser: show the full path as the hint for filtered items

Bug fixes
(common)
12967 Advanced fill in the channel rack doesn't add an undo item
13249 Audio recording to the playlist creates incorrect sub tracks
12009 Backspace key doesn't work on the first press when renaming an empty mixer insert
13327 Chinese language can't be selected
5510 Cloned items are not selected in the picker panel
12537 Crash on undo after trying to drop a plugin on audio clip
13091 Crash when clicking on a pattern clip
11554 Dropping a project file on the channel rack's title bar doesn't open it
12584 Export as an .ogg file doesn't work when the samplerate is higher than 48 KHz
13012 Mixer track volume sliders snap up after adding a track to the selection
13187 No audio is recorded when pausing and restarting playback in some cases
10549 Notes are truncated when merging clips that are shorter than the pattern length
13294 Play button's hint has the wrong shortcut when it's pressed
11346 Playlist tracks are too easily grouped while resizing them
13310 Position of recorded audio can be incorrect when when pre-count is enabled
13275 Projects opened from a network location are not added to "recent projects"
13264 Second to last LFO envelope point can't be deleted on automation clips
13120 Some buttons in the color dialog are aligned incorrectly at 150% scaling
13054 "Sort by name" of channels and patterns doesn't sort by numbers correctly
13114 The last point of automation clip envelopes can be deleted
13137 Touch controller crashes when triggering out-of-range notes
-
13101 3x Osc: AM OSC 3's settings don't save on preset and project
13224 3x Osc: coarse pitch labels show the wrong range
13100 3x Osc: doesn't load HQ, AM, Inv state from old settings
13099 3x Osc: Levels Adjustments in the options tab don't work
13103 3x Osc, DX10, Kick: LFO at high rates sounds different to old version
13102 3x Osc, DX10, Kick: envelopes not loaded from presets
13085 Delay 2: hint for the feedback control is incorrect
13028 DirectWave: crash when dropping some wave files
13259 DirectWave: finding samples can take a very long time
13258 FLEX : oscillators don't always work when triggering notes in monophonic mode
13261 Keyboard Controller: scrolling the note name doesn't update the value slider
13077 Slicex: replacing audio from the browser freezes the program
13206 Soundfont Player: loading settings from a newer version isn't disabled
13044 Wrapper: the bypass parameter of VST3 plugins is changed during randomize and hybridize
13221 ZGE Visualizer: DMX messages are not sent when plugin is hidden
-
13345 Scripting: crash when closing a plugin window if ui.GetFocusedFormID is called
-
13232 Browser: closing the program takes a long time when the current tab is filtered
13282 Browser: favorited items are not restored when reopening the program
13139 Browser: the minimized browser window shows more than it should
13115 Browser: "Open in new Fruity Slicer channel" option doesn't work
13245 Browser: preview of .fsc files isn't correct when the browser is resized
13283 Browser: unicode text in browser tabs is not remembered correctly
13244 Browser: loading of samples in sample view is very slow
13189 Browser: refresh adds duplicate items
13055 Browser: search field can't be focused
13188 Browser: tab icon size changes when the item height changes

(macOS)
13313 Crash when using a very short audio buffer
13239 Mixer layout changes if the channel rack is maximized
13027 News panel's scroll bar has visual glitches
13274 Playlist freezes after dragging an sample to a track
-
13094 AudioUnit plugin's validation crashes in Logic

20.99 beta 1 (2022/04/06)

Changes
7334 Implemented an improved sample browser (work in progress)
11731 Added "Adjust position of recorded audio" option to the mixer input latency menu
5495 Renamed "Punch in/out recording" markers to "Start recording" and "Stop recording"
12992 Show names of updated browser folders in the debug log
12868 The octave for the typing keyboard can now be changed with Alt + numpad 2-6
-
8749 3x Osc, DX10 and Fruit Kick can now be used in Patcher
12953 Convolver: Impulse samples no longer have length limit
10947 Edison and other plugins: scripts are now hardcoded and work on any platform
FL Studio Mobile updated to v4.0.1 (https://support.image-line.com/redirect/flstudiomobile_changelog)
7538 Plugin Manager: some incorrect plugin search paths are no longer allowed
-
12985 Scripting: allow redirect links for the help link in a script

Bug fixes
(common)
10730 Automating the channel volume for VST plugins causes pops and clicks
12675 Automation clip envelope points are not context aware
9762 Automation jumps to a new value when a synth is playing
12804 Can't change the color of an audio track in the playlist
12731 Can't record parameter automation on a plugin placed after any plugin producing latency
12723 Can't use "Select with selected source" for hidden audio and automation clip channels
12652 Changes to (advanced) looping settings aren't undoable
12765 Channel rack filter switches from "all" to "unsorted" when dropping a sample
12775 Cloning a layer channel causes channels to show with steps instead of the mini PR view
12802 Cloning multiple playlist tracks doesn't clone all clips on those tracks
12778 Closing FL Studio after renaming a mixer insert doesn't show the "save" prompt
12872 Color editor doesn't work correctly when editing the color of a browser tab
13003 Crash after deleting a channel when there is latency compensation
12783 Crash painting the level meters on playlist track headers
12905 Crash when the target mixer track of an instrument channel is automated
12964 Crash when undoing "Burn MIDI to"
12798 Crash when importing MIDI files in some cases
13006 Crash when opening the playlist in the project "Parrik - Behind mute lips"
12693 Effect presets are opened twice when dropped on multiple instrument and audio tracks
12793 Envelope editor: some menu items don't do anything when one point is selected
12799 Exporting to a MIDI file doesn't ask to overwrite an existing file
3396 External audio input has delay compensation applied to it in error
12695 Fast declick for cut groups doesn't work properly
12833 Filenames for recorded audio aren't always correct
12790 Fine pitch in the graph editor does not show the real 10 cent accuracy changes
12116 FL Studio doesn't remember the last folder you used to save, open or render
12803 Incorrect color for sub tracks when loop recording to an audio track
12919 "Last tweaked" controls list isn't reset when the project changes
12917 "Limit windows to screen" doesn't work correctly if a screen has been turned off and on again
12615 Looping is incorrect after PPQ is changed
12896 Memory leak when loading samples
12777 No undo when naming a channel with middle click in the channel rack
12974 Only one of two overlapping cloned audio clips plays when triggered from the middle of the clips
12781 Only the visible event is changed when inserting or deleting spaces in the piano roll
12782 "Quantize song jumps" breaks looped playback
12704 Quick legato uses notes from the wrong piano roll
11575 Recording audio doesn't take positive manual input delay values into account
12789 Scale levels for piano roll note parameters is broken for Mod X and Mod Y
13001 Settings window is not shown when adding a layer, sampler, audio clip or automation clip
12904 Slip Edit in the playlist behaves incorrectly in some cases

12291 The decimation threshold for event to automation conversion doesn't always work
12836 The selection of items in the picker panel is not updated when clicking on a clip in the playlist
12713 Time signature markers are placed too early
12776 Undo and redo of cloning a layer channel doesn't take child channels into account
12254 Undo and redo of playlist track consolidation is inconsistent
3687 Undo causes plugin preset files to be placed into the recycle bin
-
10801 Beepmap: freeze when length is set to extreme values and "voice.bmp" is selected
12899 Big Clock: Bar/Beat/Step/Tick display is wrong when using tempo automations
12993 Diagnostic: only one option to fix project files is shown for some files
13040 Frequency Shifter + Razer Chroma: occasional crashes when closing the plugin
12837 Pitch Shifter: text in combo box popup menus is bigger than the combo box text
12763 Slicex: option menu doesn't stay open when right-clicking checked items
13017 Slicex + other plugins: popup menus don't respond when there are a lot of instances
12834 Soundfont Player: old settings with percussive presets aren't loaded correctly
12780 Soundfont Player: the loaded soundfont file is not included in exported zip files
12800 VFX Key Mapper: note labels show an octave number when they shouldn't
12841 Wrapper: short audio burst when playing a note on a plugin when channel volume is zero
12761 ZGE Visualizer: crash when using "Add window"
12941 ZGE Visualizer: empty gray area above parameters when switching effects
12756 ZGE Visualizer: problem with reloading .svg files
12880 ZGE Visualizer: program freezes when exporting presets that use video
-
12744 Scripting: general.undo(), restoreUndo(), and restoreUndoLevel() do the same thing

(macOS)
12590 Incorrect audio device used when plugging in headphones
12725 PoiZone, Sakura and other plugins aren't focused by a mouse click
12975 Random crash
12135 Starting FL Studio on a Mac Mini shows a "No input" message
-
6219 Newtone: Can't drag samples into the plugin
12966 Ogun: Harmonic Comb is shown incorrectly
-
12916 Scripting: showing a red rectangle disables access to controls in the channel rack

20.9.2 (2022/04/11)

Changes
13064 Added a button to check for MIDI script updates
-
12796 Scripting: channels.showGraphEditor now also accepts a channel group index parameter
12737 Scripting: the "res" parameter in incEventValue is now optional
12770 Scripting: added a function to let a script show some notifications

Bug fixes
12750 Debug log doesn't show correct touch screen information
12716 Incorrect hints on some controls in the export score to PDF window
12258 Pot pickup does not work for Omni MIDI Links
12751 Surface Pen erases when it should add notes
-
12370 FLEX: limiter doesn't sound the same as in previous versions
12810 Fruity Slicer: splitting and removing slices does not update note names in the piano roll
-
12709 Scripting: detection of MIDI devices doesn't always work
12774 Scripting: incorrect results from the function plugins.getParamValue
12797 Scripting: Novation Launchkey Mini MK3 is detected even though it's not specifically supported
12743 Scripting: playlist track indexes aren't checked correctly
12742 Scripting: parameter indexes aren't checked in getParamName and getParamValueString

12794 Scripting: red focus rectangle on channel rack makes it impossible to click on controls
12814 Scripting: the value of event.Handled is ignored when it's set inside OnPitchBend

(macOS)
12811 MIDI Clock messages show up in the FL Studio debugger as not handled

20.9.1 (2022/02/15)

Bug fixes
12740 Incorrect values recorded when automating plugin parameters from a MIDI controller
12509 M-Audio audio devices sometimes stop working
12728 Short delay when opening the settings window of an automation clip channel
-
12732 Harmor: Harmonic protection sounds different than in earlier versions

20.9.1 RC2 (2022/02/10)

Bug fixes
12712 Advanced fill tool doesn't show the correct help page
12376 Clicks when stopping sample preview in the browser
12673 Dropping mixer state presets on effect slots does nothing
12710 Envelope points can go out of bounds when more than one is selected
12705 "Export all playlist tracks" creates only one file
12689 Keyboard shortcuts don't work in the automation clip channel window
12636 Looping mode is reset when a channel is deleted
12666 Merging pattern clips that contain length markers doesn't work properly
12709 MIDI devices are not always detected correctly when first connected
12694 Pickup of MIDI automation doesn't work after using the same control on a different MIDI channel
12515 Restarting the program resets the background color to the default
12391 Slow visual updates if an automation clip channel window is open during playback
12678 Starting the program takes longer than it used to
12687 The program asks to unlock again from time to time
12650 Undoing deletion of a channel doesn't restore the advanced looping settings
11751 Export to a zip file is extremely slow when there are big sample files in the project
-
12639 Edison: "Flip levels vertically" is broken in the Harmonic envelope
12701 FLEX: error message when selecting multiple filter types using "Random"
12698 FLEX: the "Dump score to Piano roll" button is not orange when available
12677 FLEX: artifacts in audio with specific delay settings in some packs
12685 Gross Beat: copying and pasting points results in an incorrect envelope
11270 Patcher: pitch bend is applied incorrectly for VST, VST3 and AU plugins
8376 Patcher: pitch bend is applied twice for FLEX
12665 Soundfont Player: crash when maximum polyphony is set to 1
12664 Transient Processor: bug on first transient it receives after you load a project
12676 Transient Processor: parameters are smoothed when opening a saved preset
12095 ZGE Visualizer: freeze when using a video controller with multiple outputs
-
12686 Scripting: Plugins.getPadInfo returns the wrong value for note #2
12696 Scripting: MIDI clock is not sent on playback when sync is enabled from "OnFirstConnect"

20.9.1 RC1 (2022/01/28)

Changes
12649 Scripting: getChannelType returns different values for audio and automation clip channels
12642 Scripting: allow simultaneous highlight rectangles via crDisplayRect

12605 Scripting: detection by hardware ID is now case insensitive

Bug fixes
12428 Can't stop recording into the playlist if there's a precount and recording options were shown
12625 Crash when opening a project in an old version and loading is canceled
12622 Crash when pressing keys with a plugin window open
12621 Crash when recording automation for the Formant control when Stretch Pro is selected
12638 Dropping an audio clip preset file on the channel rack doesn't add it to the Audio filter group
12608 Freeze when moving an audio track in the mixer after cloning the track in the playlist
12614 Grey indicator in the playlist timeline when "Quantize song jumps" is off
10383 Incorrect root note when a channel sample is saved with a changed pitch offset
12660 News panel doesn't show images for the news items
12610 Program doesn't start
12604 "Render finished" sound plays after consolidation of playlist tracks
12617 The option to show level meters on instrument tracks can't be turned off
12624 Title of a project is shown in the hint area if loading is canceled
12618 When adding an instrument track, the newly added pattern clip is not selected
-
12654 Edison: some controls have incorrect values when the plugin is opened from "More..."
12613 FPC: can't rename pads
12631 Patcher: crash when loading some plugins (e.g. PoiZone and Sakura)
12656 Soundfont Player: notes starting at 0 velocity don't adjust when sliding the velocity up
12655 Soundfont Player: overlapping notes are cut off
-
12640 Scripting: crDisplayRect is incorrect when the channel rack is narrow

(macOS)
12606 Can't type anything in text fields
-
12607 DX10: crash when the plugin is opened
12619 Sytrus: pitch changes when the oversampling setting is changed (Apple Silicon)

20.9.1 beta (2022/01/20)

Changes
12449 Added "Quantize song jumps" option to the playlist
12565 Added "View" > "Always show external input levels" option to the mixer
12541 Changed the text on the "Show unlock window" button in the about window
12483 "Make unique as sample" doesn't prompt for a filename when the Shift key is held
12539 Playlist can optionally show audio meters for instrument tracks
12487 The undo history in the browser no longer opens automatically while undoing
-
12417 Diagnostic: removed 32 bit rendering tests
12506 FLEX: show a message in the "Free" and "Store" tabs if there's no internet connection
12567 FPC: added context aware type-in value support
12553 Frequency Splitter: added context aware type-in value support
11879 Plugin Manager: changed text of "Find installed plugins" button
-
12514 Scripting: added a function to distinguish between channel types
12512 Scripting: added a function to query the state of master sync
12568 Scripting: added a function to retrieve pad-specific plugin info (FPC only for now)
11931 Scripting: added functions to toggle "Bypass all effects" and "Inverse polarity" in the mixer
12545 Scripting: notify scripts when the sequencer steps are affected through undo
12499 Scripting: crDisplayRect can now show rectangles for parts of the channel rack

Bugfixes
(common)
12485 "Auto color group" in the mixer doesn't create an undo entry
12600 Can't open a plugin after its name is changed in Plugin Manager

12462 Can't stretch note and clips with the right-side Shift key
12425 Can't use the "s" key to play notes on the computer keyboard when the mixer is focused
12504 Color of mixer track is not updated when the linked track in the playlist is reset
12526 Crash during undo of dropping a sample in the playlist
12581 Crash when a message is shown while the program is starting
12415 Dragging a waveform from the Sytrus Osc tab to the channel rack is broken
12444 F2 to rename an automation channel doesn't work when its editor window is open
12470 "Fast sample preview" option is too slow
12427 "Flip vertically" doesn't apply to envelope selection
12431 Freeze while undoing slicing and merging of automation clips
12413 Incorrect channel filter group for audio clip and automation channels when loading a project
12523 Instrument tracks get out of order when the mixer selector is moved quickly
12498 It's not possible to go back to 1 point after adding points to LFO envelopes
12433 Merging automation clips doesn't undo correctly
12563 MIDI pickup doesn't always work when the control is at the lowest position
12559 Moving a selection of tracks in the playlist up or down can cycle the selected track positions
12422 New channels show steps when they're supposed to show the mini pianoroll view
12434 News items can contain incorrect text in some cases
12435 Only one featured news item should display the full description
12397 Pitch automation clip shows type-in value in dB for the Max knob
12423 Plugin preset files show up in the recycle bin
12478 "Receives notes from" doesn't filter notes from MIDI channels
12589 Recorded audio clips aren't assigned to the correct mixer track
12429 Recorded audio clips are placed on new tracks when there's room on existing tracks
12536 Redoing after dropping a sample in the playlist doesn't put the clip back
12481 Renaming a playlist track that's not selected will rename selected tracks instead
12143 Setting a playlist track as an audio track automatically replaces name, color and icon
12593 Script options button in MIDI settings is shown for an IL Remote device
12480 Scrolling in the playlist is slow when there are a lot of audio tracks
12497 Some envelopes can't have only 1 point while they should be able to
12534 Target link names for automation clips are not updated when the channel name changes
12547 The keyboard shortcut to clone playlist tracks conflicts with selecting the paintbrush
12500 The reset option in the undo history section of the browser is missing
12412 Undo changes the linked parameter on the automation channel editor after adding a channel
12486 Undo of "Auto name" of playlist tracks doesn't update linked tracks in the mixer
12549 Ungrouping playlist tracks by moving them up creates a new group
-
12457 Autogun/Ogun: loading the plugin or changing a preset takes longer than it used to
12522 Control Surface: the keyboard control has the wrong size after duplication
12414 DirectWave: extracting the root key from a file with hyphens in the name doesn't work
12193 DirectWave: setting output and pitch bend range on the Multi Bank tab doesn't work
12472 Fruity Granulizer: "Use regions" doesn't work
12531 Fruity Slicer: crash when using the plugin
12530 Fruity Slicer: editor window is not visible when it replaces an existing Fruit Kick channel
12421 Fruity Slicer: there are two "unsupported" per-voice parameters
12424 Gross Beat: "Smooth up" messes up the envelope
12564 MIDI Out: resetting controls is not possible
12396 Newtone and Newtime: crash when the plugin is opened if the Visual C++ runtime is not installed
12501 Ogun: incorrect hint values for the Unison parameters
12577 Patcher: graphical problems when opening the plugin from an empty preset
12447 Sytrus: tweaking the modulation matrix doesn't add undo entries
12561 Transient Processor: window doesn't show correct content at 150% scaling
12576 Wave Candy: changing a color doesn't use the new color window
12544 ZGE Visualizer: export to TikTok video is broken
-
12517 Scripting: ports for scripts are not always correctly set up on first connect
12595 Scripting: news updates too often when channel parameters are updated by a script
12552 Scripting: scripts are not always closed correctly when FL Studio closes
12542 Scripting: scrolling through ui.crDisplayRect doesn't always work correctly
11920 Scripting: ui.getFocusedPluginName returns empty string for non-plugin channels

(macOS)
12528 Green line doesn't disappear after dragging something to the channel rack
12437 Magic Mouse swiping gestures don't move mixer tracks
12538 Pressing F1 to open the help page doesn't work when a plugin is focused
12533 The tempo tapper window is hidden behind the FL Studio window when clicking anywhere
12529 Wrong channel is deleted when there are 3rd party plugins
-
11651 Wave Candy: graphical glitch

(Windows)
12511 "No disk in drive" error on startup
-
12532 Plugin Manager: the program is blurry when Windows is scaled to anything other than 100%

20.9 (2021/12/21)

Changes
12210 Show restart message when changing the high visibility mode option

Bugfixes
(common)
12380 Audio track names glitch, showing on one or multiple lines, when track controls are hidden
12377 Clone options window shows up on the wrong screen
12404 Crash when cloning playlist tracks with grouped tracks
12379 Delete instrument channel window shows up on the wrong screen
12408 MIDI device that fails to open can't be disabled
12401 News panel shows update message multiple times
12372 Quick chop keyboard shortcut in the piano roll doesn't work
-
12370 FLEX: limiter loses initial state after switching its type
12411 FLEX: controls have incorrect values when presets are opened
12368 FPC: pad names are incorrect when changing presets

(macOS)
12405 Audio glitches when previewing samples in the browser
12402 Crash when starting the program

20.9 RC4 (2021/12/20)

Bugfixes
(common)
12378 Auto-detected controllers can't be set to the "generic controller" type
12381 Can't move playlist tracks with shift + mouse wheel when the cursor is over the audio track controls
12375 Deleting a channel causes a switch to the All filter group
12363 Dropping a sample on an envelope editor takes a very long time
12393 Format shift slider overlaps its label text on the channel settings window
12369 Program doesn't start or crashes if the Fire controller is attached at the wrong time
12367 "Validation file saved" message is shown when the user canceled saving it
12394 Wrong help file page for the Export score sheet window
-
11085 VFX envelope: wrong name for multiple parameters
-
12366 Scripting: HW_Dirty_Patterns is not sent when a pattern is changed from the toolbar

(macOS)

12354 Akai Fire controller doesn't work
12275 Crash when using bridged plugins
12385 Messages from bridged plugins show behind the FL Studio window
12390 Start time and duration values are not visible on the Note Properties window
12395 The program sometimes does't start on macOS 12 Monterey

(Windows)
12384 Dropping a speech preset on the channel rack causes graphical issues

20.9 RC3 (2021/12/14)

Bugfixes
(common)
12341 Automation clip editor does not show the playback cursor in the correct location
12353 Channel rack switches to wrong filter group when a channel is deleted
12356 Cloned playlist tracks do not copy the mute status of the source track
12340 Graphical glitches in the automation clip editor
12345 LFO checkbox in automation clip's channel settings is not scaled
12346 News panel glitches while opening if the news was disabled
12350 Point menu in automation editor shows delete option when only 2 points exist
12319 Resetting a curve when for multiple points in an envelope results in unexpected behaviour
12355 The playlist track mute button is too wide
12339 The scrollbar is not resized properly when disabling LFO in the automation clip editor
12330 The tension handle can't be seen when an envelope point is set to the "Wave" or "Pulse" type
12324 Two finger scrolling in the playlist and piano roll behaves weirdly
12359 "Unassign from audio track" menu item is enabled for mixer tracks linked to an instrument track
-
12352 Edison, SliceX, Convolver: envelopes allow the right-most point to be moved

20.9 RC2 (2021/12/13)

Changes
12327 Show NewStuff whenever a new version is launched for the first time
12322 Added an internal test for lost quit messages

Bugfixes
(common)
12333 New channels are always added to the "unsorted" filter group
12329 Track controls in the playlist are in the wrong position after changing the height of the scrollbar
12309 Inserting a new channel will visually shift notes down by one channel
-
12317 Pitch Shifter: hints for controls don't show units

(macOS)
12232 Filter in More plugins window doesn't work well (e.g. only allows one letter)
12332 Pressing a letter key in the favorite plugins menu jumps to the wrong item
12335 Stuck ILBridge processes after closing FL Studio

20.9 RC1 (2021/12/10)

Bugfixes
(common)
12308 Control Surface: crash when choosing a control style if there are custom styles
12318 Envelope Controller: text in the art selector is too small when the program is scaled

(macOS)
12292 Crash when selecting an audio input for a mixer track

20.9 beta 9 (2021/12/08)

Changes
11998 Added a news panel to replace the news popup menu
12285 Added an option to hide recording controls on audio tracks in the playlist
12272 Added a keyboard shortcut for "clone PL tracks"
12001 MIDI script updates are now automatically downloaded
11755 Require a verification code to unlock with a license file
-
FL Studio Mobile updated to v3.6.17 (https://support.image-line.com/redirect/flstudiomobile_changelog)
-
12252 Scripting: send OnDirtyChannel event when a channel is selected

Bugfixes
(common)
12293 Assigning mixer tracks to audio tracks doesn't flag the project as unsaved
12218 Audio track controls show in the wrong position after the picker panel is shown or hidden
12240 "Auto-create audio clip" doesn't work when rendering from the mixer
12277 Changing the mixer track for an audio track in the playlist doesn't disarm the old mixer track
12281 Consolidated clips disappear from the playlist undo when the channel was replaced with a plugin
12242 Copy and paste of envelope points doesn't duplicate them exactly
12130 Clip order changes when redoing
12296 Cloned tracks are not locked to content if the source tracks were
12233 Cloning tracks results in incorrect names
12253 Crash when closing FL studio
12264 Crash when deleting a channel
12283 Crash when dragging the transport panel around while editing the toolbar
12282 Crash when undoing moving a clip after consolidation
12245 Crash when replacing an automation clip channel with a plugin
12223 Crash when switching a VST plugin to bridged mode and back
12231 Crash when undoing or redoing audio recording after using "purge recorded audio"
12286 Crash when "Hide collapsed grouped tracks" in the track header menu is right-clicked
12238 Crash after undo and redo of changes inside plugins
12222 Crash when deleting an arrangement if there are audio tracks
12217 Crash when the clone playlist track confirmation window is canceled
12295 Double-clicking on an audio track header in the PL doesn't open the mixer if it's hidden
12229 Freeze when changing the port for a MIDI device
12263 Graph editor shows at the wrong position and size after maximizing the channel rack
12220 Incorrect hints shown for the options in the clone playlist track confirmation window
12290 MIDI scripts are shown as "built-in" in the controller type list if the script name starts with a space
12255 Mixer track is not reset when an instrument track is deleted if other mixer tracks are routed to it
12279 Other windows are closed when double-clicking a track's header while holding the Alt key
12288 Pickup of controller input snaps to an old value after a preset is loaded
12287 Pickup of controller input doesn't work with volatile links
12246 Recording audio into the playlist doesn't add the new channels to the "Audio" filter group
12213 "Remove background picture" in the event editor's View menu is disabled
12271 The filter group for a channel is not updated when replacing it with a different type of channel
12269 The level meter for audio tracks has a different width left and right channels
12239 The "randomize" tool in the piano roll shows the octave with note names
12211 The target selector control disappears when minimizing the event editor window
12266 Undo gesture in the playlist and piano roll doesn't work when "alternate undo mode" is enabled
12234 Undo of "Autoname clips" doesn't work
12248 Wrong name for automation clip after cloning a PL track

-
12228 NewTime: files are stretched incorrectly
12250 Newtone: adjusting formant shift can show the hint behind other slices

(macOS)
12297 Crash when something goes wrong while the application is closing
12274 Incorrect plugin architecture detected if a plugin contains 32-bit or PowerPC binaries
12202 Option + touchpad scroll in the piano roll doesn't update note velocity but zooms instead
10036 Program settings are reset randomly
10035 Random crash
12196 Stuck window when renaming a channel using Shift + Click on the window title bar
11820 Touch controller window behaves weirdly and crashes when docked or undocked
12247 Various glitches in the user interface
-
12227 Scaling issues for some plugins when they're bridged

20.9 beta 8 (2021/11/26)

Changes
10228 Added an option to clone the selected playlist tracks (in the track popup menu)
12195 Disarm a mixer track when its associated playlist track is changed to a different type
-
12191 MIDI scripting: added a function to toggle device master sync

Bugfixes
(common)
12154 Bar count in the envelope editor for an automation clip is wrong when zoomed out
12162 Bar numbers in envelopes disappear when the playback cursor passes over them
12174 Crash when undoing the deletion of a playlist track
12167 Crash when undoing "delete channels" after recording
12159 Glitches in the LFO view for an automation clip if the min and max values change while playing
12014 Merge Automation Clip skips small clips and has inconsistent outcomes
12187 No languages are listed in General options
12161 Rail color for sliders on mixer tracks is not updated when (dis)armed from the playlist track
12144 The popup menu for an envelope point doesn't show the point's curve type
12163 Song loops after one bar instead of when an automation clip ends
12116 The last folder used to save, open or render a project isn't remembered
12146 Undoing dropping a sample from the browser to the playlist is incorrect
12166 Vertical scrolling in the playlist slows down the program a lot
-
12151 FLEX: panning bug
12157 Newtime: high cpu usage when synced to host
12158 Newtone: no playback when host sync is on

(macOS)
12153 Diagnostic: information about registered products is incorrect
12044 Edison: part of the sample is deleted when using the denoiser

20.9 beta 7 (2021/11/19)

Changes
12090 Show bar numbers in envelope editors
7865 The program license can now be updated without entering the email address and password
12084 Added a "Log out..." button on the unlock window to remove all licenses from the computer
12036 New plugin: Vintage Chorus
11894 New plugin: Pitch Shifter
11527 Audio tracks in the playlist now have recording controls for the linked mixer track

10856 Added an option to show note names as either "flat" or "sharp"
10603 Improved conversion of event automation to automation clips
12137 Added support for two-factor authentication in the unlock window
12131 Changed the text on the buttons in the unlock confirmation window
12129 Added the option "Small text in plugin lists" in the mixer's View menu
-
12010 FLEX: updated to version 1.3 with various improvements
12122 FLEX: added an option to dump a score from the preset to the piano roll
12089 FPC: "Use current layout when changing presets" is now on by default
-
12101 Scripting: improved detection of linked inputs and outputs through the hardware ID string
12086 Scripting: added pickup feature to plugin.SetParamValue

Bugfixes
(common)
12119 Crash when opening a project while the automation editor is open
12007 Enabling slide points in envelopes with a fixed range moves the end point out of range
12093 Formant shift slider's value isn't set correctly when reopening the channel settings window
12111 Loading more than one audio file in a sampler channel can freeze the program
11821 "Lock to content" doesn't rename and color the playlist track
12020 Moving points around in plugin envelope editors causes high cpu usage and lag
12110 Two undo entries are created when a sample is dropped on a channel
5838 Presets for "Typing keyboard to piano keyboard" aren't recognized when they're in sub folders
-
12112 FLEX: audio glitches when Amp Env Decay in Master Controls is changed
12104 FLEX: previously saved settings are not loaded correctly
11888 FLEX: overlapping notes sometimes play without ending
12114 Soundfont Player: crash when opening some soundfont files
12106 Soundfont Player: the name label is cut off
-
12082 Scripting: pickup is broken for mixer track controls when there is latency

(macOS)
12118 Crash when the option "GUI input"> "Optimize for" in General settings is changed
12066 Crash when the options "Detached all plugins" and "Auto select linked modules" are both on
12098 Rendering audio is slow on Apple Silicon

20.9 beta 6 (2021/11/04)

Changes
11808 The Apple Silicon version of FL Studio can now open Intel VST and AU plugins
11721 "Keep on disk" for long samples now works in macOS
10346 Added "Stretch Pro" elastique option with a formant control to the channel settings window
6124 Added root note selection for "Typing keyboard to piano keyboard"
12060 You can now select from a wider octave range for "Typing keyboard to piano keyboard"
11946 Added a new sequential playback mode to layer channels
12005 Default value for "monitor external input" is now "when armed"
7865 Download license updates without email and password (after an initial unlock)
-
131 Slicer: "Fill gaps" and "Alternate fill gaps" now work in 64bit Windows and on macOS
11987 Patcher: removed the middle-Click shortcut to open the plugin picker
-
12073 Scripting: added the OnProjectLoad event
12038 Scripting: added "Scroll to view" flag for ui.crDisplayRect
12076 Scripting: added "Scroll to view" flag for miDisplayRectangle
11982 Scripting: added the OnFirstConnect event
11977 Scripting: added a way to show and hide miDisplayRect/crDisplayRect without a time-out
11932 Scripting: added the OnDirtyChannel event

Bugfixes
(common)
11978 Adding a new instrument track doesn't focus the plugin's editor form
11964 Can't press enter to close the color picker window
11969 Crash copying wave data in memory
11967 Crash at startup
11322 Crash at startup if the current project node is open
12067 Crash extracting a zip file
11386 Crash storing a MIDI controller link
12075 Crash when changing the song position during recording precount
12057 Changing the color of Playlist tracks with the middle mouse button also changes their icon
12018 Channel rack hint for piano roll preview is shown in the wrong location
11979 Envelope points are in the wrong location after using "Paste replace" with multiple selection
12013 Envelopes mistakenly don't allow a single point
11938 Export with 'Split mixer tracks' does not work if 'Dithering' is enabled
12040 Typing keyboard layouts with note names in SCR files won't work when solfege is selected
11901 "Turn events into automation clips" doesn't undo correctly
12056 Undoing in the Piano Roll doesn't update loop markers
11933 Wrong pitch when stretching samples that have different sample rates
-
11985 Control Surface: sometimes controls move while being resized
11993 Edison: clicking on effects while recording doesn't disable the record button
12028 MIDI Out: minimum value changes while editing maximum value
12026 MIDI Out: control settings menu forgets note range values when set to note
12019 Patcher: closing a plugin window with escape closes multiple windows
11997 Patcher: default size for mini map is wrong when the GUI is scaled
11986 Patcher: image tearing in scrollbar background when scrolling
11981 Patcher: mouse cursor is lost when dragging from the mini map with the right mouse button
12041 Plugins don't show icons in hints for automatable controls
12034 Soundfont Player: velocity and pan slides don't work
11974 Soundfont Player: channel name doesn't update correctly when opening a new file
11973 Soundfont Player: crash when dropping a soundfont on the plugin
11980 Wrapper: saving a .vstpreset file creates an empty file
11972 Wrapper: crash when clicking on a CC parameter for a VST or VST3 plugin
-
12074 Scripting: detecting links between input and output devices doesn't always work
12058 Scripting: enabling or disabling a MIDI device stops other devices from working
12054 Scripting: for direct script access to pot pickup doesn't work in SetChannelVolume
12055 Scripting: getParamValueString returns 'smoothed' value for FLEX
11991 Scripting: Next/Previous preset functions don't work on closed plugins
12006 Scripting: transport.Start and transport.Stop do not work as advertised
12031 Scripting: ui.crDisplayRect is inaccurate when piano roll overview is ON

(macOS)
12030 Freeze when loading a project
12024 Freeze when loading a project with plugins in Rosetta 2 mode (Apple Silicon)
-
12035 DirectWave: multi-bank and library views don't show anything
12004 Newtime: can't create groove markers
11965 Soundfont Player: captions don't show in macOS

20.9 beta 5 (2021/10/14)

Changes
11607 Added undo of grouping mixer tracks
11600 Adding, removing and editing target links is undoable and removing them shows a warning
11482 "Assign to new audio track" in the mixer now works for all selected tracks
11289 Various undo improvements related to audio recording changes
11340 Added an option for each mixer track to select at what point audio is recorded

11634 Added an option for each mixer track to select when external audio input is monitored
11897 New 64 bit and macOS compatible Soundfont Player plugin (replaces Fruity Soundfont Player)
11787 Added multiple selection of points in envelope editors
11876 Added undo for envelope changes and some other non automatable actions in plugins
6100 Added undo when replacing audio files in channels
11681 Added undo for some mixer track settings (input select, monitoring, latency)
-
11904 Control Surface: improved grid snapping
11816 Frequency Shifter: made the editor look a bit nicer
11653 Fruity Squeeze: added context aware type-in value support
11555 Newtime: added Shift markers
11930 Newtime: the Groove and Shift controls now use the same color of their corresponding markers
8991 Patcher: hold Alt when dropping a plugin preset to create an unconnected module
11480 Patcher: use lasso zoom to focus an area
11489 Patcher: added mini map to help with navigation
11707 Patcher: added zoom options to the map root menu
11734 Wrapper: allow saving .vstpreset files for VST3 plugins
11948 Potential crash closing plugins that have envelope editors
-
11577 Scripting: added track selection functions in the playlist module
11732 Scripting: added a function to show which tracks in the mixer are active
11736 Scripting: added a function to query "docked" status of a mixer track
11737 Scripting: added a function to retrieve note names published by plugins
11739 Scripting: added a function to scroll the mixer window by specifying the first visible channel
11798 Scripting: added a function to get the id of the focused window
11811 Scripting: added 6 (VER_ArchAndBuild) as a valid parameter value to getVersion function
11862 Scripting: added function to Perform Quick Quantize Start Times function
11861 Scripting: added a way to display a red box around channels selected for editing
11860 Scripting: get channel/Track volume in dB
11919 Scripting: added option for ui.ScrollWindow to scroll horizontally where possible
11907 Scripting: added a function to query the number of presets in a plugin
11906 Scripting: added a hardware refresh flag when the channel rack filter changes
11828 Scripting: added a function to dump the score log and to clean the log
11786 Scripting: added optional pot pickup functionality for direct script access
11908 Scripting: added an extra parameter to miDisplayRect to indicate what tracks the rect applies to

Bugfixes
(common)
11673 Access Violation when undoing "use existing channel as instrument track"
11585 Adding a new channel crashes when channel looping is active (in the 20.9 beta)
11293 Adding notes to a pattern clip doesn't increase its length if it's linked to an instrument track
11775 "Assign to new audio track" uses the same mixer track for multiple selected playlist tracks
11655 Can't change color of icon using "set name/color icon" on mixer tracks
11613 Crash when an automation clip window is detached or attached during playback
11567 Crash when renaming playlist tracks
11928 Crash when deleting an audio track
11924 Crash when FL Studio is closed after automating some channel settings params
11918 Crash when trying to buy a trial plugin in some cases
11785 Envelope editor: 1/3 beat and 1/6 beat shows an incorrect grid
11725 Extra search paths allow empty paths
11664 Freeze when multitrack recording with audio tracks
11714 Graphical glitch for the event name label when scrolling the piano roll left and right
11070 Mixer faders don't maintain relative dB values when tweaked together
11761 Multi-link > Humanize doesn't do anything
11662 Multiple recorded clips are added to the same PL track
11424 Only the selected track is solo'd when using Ctrl + Alt + click on a grouped playlist track
11915 Piano roll moves to the foreground when making a clip unique
11769 Picker panel: "select in playlist" option acts strangely for unused audio and automation clips
11838 Playing notes from the computer keyboard doesn't work while tweaking a knob on a plugin
11799 Recording audio freezes after 101 minutes
11604 Redo of replacing a channel's sample doesn't work

11596 Selecting an instrument track in the playlist doesn't select the linked mixer track
11768 "Select in playlist" doesn't affect the mini playlist preview
11805 Settings of the automation editor in channel settings aren't saved when switching projects
11917 The help page shown for the layer channel is incorrect
11819 The help for channel settings shows two pages, one of which is "forbidden"
11692 The release knob of the piano roll Chopper tool doesn't affect the notes
11700 Title of the "type in value" window for master volume is wrong
11822 "Type in value" in Env Editor shows incorrect default value
11590 Using the 'Play Selected' icon in the playlist during recording creates new recordings
11898 "Wrong notes" warning when loading a project that was saved after deleting a channel
-
11903 Control Surface: initial value of a slider's steps does not match what's shown
11887 Control Surface: caption of renamed duplicated control does not update
11638 Convolver: gap at the bottom of the window when the plugin is detached and maximized
11745 Delay 3: incorrect number of bits shown in the bitcrusher module when hovering over the knob
11616 Edison: scripting doesn't work (in the 20.9 beta)
11661 Harmor: can't read some SCL files correctly
11628 Love Philter: the value in the hint bar isn't updated when tweaking controls
11877 MIDI Out: description and number reset when changing the parameter type
11660 Parametric EQ 2: red line on the right side of the graph when there are lots of high frequencies
11571 Patcher: crash when using Alt + middle-click to zoom
11657 Patcher: right-click on the "From FL Studio" output places the new module out of bounds
11570 Patcher: Ctrl and Alt modifiers to scroll don't work the same as in the playlist
11900 Patcher: plugin editors don't respond to keyboard shortcuts
11871 Patcher: crash if a control is tweaked
11709 Patcher: Alt + middle click zoom keeps zooming in or out after you stop moving the mouse
11524 Patcher: option to prevent plugins stealing keyboard focus doesn't work in Patcher
6693 Sytrus: saving shapes doesn't default to the user data path location for shapes
11710 Sytrus: the matrix doesn't reset on Alt + click
11612 Wave Candy" hovering the mouse over knobs doesn't show the value on the hint panel
11766 ZGE Visualizer: problem with exporting video that contains variable frame rate
-
11712 Scripting: refreshing MIDI devices causes the script output window's tabs to shift to the right
11883 Scripting: auto detection of scripts via HardwareID doesn't work when the Firmware id is different
11923 Scripting: plugins.getName with FPN_Preset results are inconsistent

(macOS)
11802 FL Studio crashes at launch inside a virtual machine
-
11623 Harmor: pinch-zoom in IMG view is acting erratically
11916 Parametric EQ 2: crackles in linear mode on Apple Silicon
-
11686 Scripting: freeze when clicking "reload script" button
11869 Scripting: the active mixer track rectangle is not fully painted when covered by another window

20.8.4 (2021/09/08)

Changes
10496 **Native Apple Silicon support**
11056 Added an option to preview notes as they are mouse clicked into the piano roll during playback
11072 Added an option to ignore level and mute state when recording "post" effects in the mixer
5538 Added an option to reset the routing of selected tracks in the mixer
11108 Added a test for the expiration of the program
10784 Added a toolbar button to see the current language and change it
6269 Added "mode" selector to the global links window
11204 Added "pickup" functionality for controls linked to external controllers (option in MIDI settings)
11530 Increased brightness of volume label on mixer tracks
11325 Renamed "Consolidate track(s)" > "Full song" to "From song start" (like in the export options)

11086 Replaced the folder selection window with a regular file window
10161 Separated reset of swing and arpeggiator in the window shown after burning MIDI to the channel
9874 Show a warning when trying to make a selection unique and a lot of clips are selected
10991 The piano roll note properties window is now shown on the same screen as the piano roll
10780 When changing the language, warnings are now shown in multiple languages if necessary
10034 Added an option to reset the language after changing it
9848 Changed "Note names" > "Neo-Latin" to "Solfege (do, re, mi...)"
11133 Added options to export all playlist tracks "from track start", "from song start" or "time selection"
9993 Show the name of the parameter being edited in the remote control settings window
10430 Allow arming a mixer track that doesn't have an external audio input open
10990 All piano roll tool windows are now shown on the same screen as the piano roll
-
7506 3xOsc: added anti-aliasing to oscillators
10529 Control Surface: added a "Show labels" option to show or hide control labels
11026 Diagnostic: show drives and disk space
11683 Diagnostic: show some message when internet connection not available
11466 Distructor: changed hints in Crusher distortion to display Hz/Bits instead of percentage
10907 Edison: apply visualization options without closing the menu when a right-click is used
10899 Edison: Renamed "Disable undo for large samples" menu to "Enable undo for large samples"
FL Studio Mobile updated to v3.6.6 (https://support.image-line.com/redirect/flstudiomobile_changelog)
11062 Maximus & Limiter: added a menu option to turn off the safety -0.2 dB
8680 **New "Frequency shifter" plugin**
11440 Patcher: added C and V hotkeys for copy and paste on inactive parameter popups
11367 Wrapper: small performance improvement
10591 ZGE Visualizer: added video scrubbing with the new "Video Controller" effect
11320 ZGE Visualizer: the webcam can now be used in multiple instances at once
11344 ZGE Visualizer: the built-in audio engine can now be used from scripting
11587 ZGE Visualizer: new "Peakmap" effect by Dubswitcher
11239 ZGE Visualizer: now outputs the "RGB average" internal controller for each buffer
-
11373 Scripting: added option to get user defined name to the GetPluginName function
11475 Scripting: added Hardware_Refresh_ControlValues flag for OnRefresh event
11537 Scripting: added the function mixer.isTrackMuteLock
11576 Scripting: added getTrackStereoSep and setTrackStereoSep functions to mixer module
11579 Scripting: added function to get color of keys for a specific plugin (only FPC for now)
-
Added new Daniel Stawczyks and Nucleon presets for Toxic Biohazard
Updated Patcher presets by Wiselabs

Bugfixes
(common)
11263 Adding an instrument track in the playlist focuses the mixer window
11401 Adding new channels to the channel rack can be slow
11300 Audible glitches when changing the song position after playback with delay compensation
11733 Audio isn't recorded when manual input latency is set to a negative value
11790 Automatic scale highlighting doesn't work when adding notes
11158 Changing the project's PPQ doesn't update the time markers of all arrangements
10474 Channel rack window becomes taller "Small scrollbars in editors" is toggled
11129 Channel states aren't previewed when clicking on them in the browser
10238 Cloning an instrument track channel doesn't assign it to a free mixer track
11694 Color history is not shown at 175% scaling
11058 Color of playlist and mixer instrument tracks doesn't change when the channel preset changes
11449 Crash when clicking "Default value" in control popup menu in Meldaproduction VST3 plugins
11247 Crash when undoing channel deletion from "Unsorted"
11395 Ctrl+G to merge clips doesn't work if there's no selection in the playlist
11365 "Don't show this in the future" option breaks "Make unique as sample"
11510 "Don't show this in the future" option prevents deleting of patterns in the Picker panel
7949 Dropping a soundfont file on a Fruity Soundfont Player channel opens it in DirectWave instead
11572 Editing automation clips lowers the framerate of the program

10975 "Enable master effects" in the render window processes effects even when they're disabled
11139 "Export all playlist tracks" ignores the playlist time selection
11177 "Export all playlist tracks" extends the exported audio files to the longest track length
11641 Exporting split mixer tracks exports all tracks instead of only the used ones
11157 "Fast declick on cut groups" in Project settings never turns off once it's turned on
11073 Generator plugins are not removed when the user chooses this in the file size warning window
11220 Generic links defined in controller presets can't be overridden
10039 Graph editor shows up and sticks to the wrong position when there are multiple screens
11503 Graphical glitches in the playlist scrollbar when the "Thick lines" setting is off
11800 Help button on missing plugins dialog doesn't work
11522 Incorrect file paths used in some circumstances
11228 Key selector in the PR limit tool window shows a "0" octave for note names
11539 KVR search for a missing plugin doesn't work anymore (removed search option)
11671 Locating VST3 plugins from a missing VST plugin's info doesn't always work
10174 Main Volume control has an incorrect hint
11359 "Make unique" and "Merge pattern" options in the playlist close the piano roll
11568 Moving a group of clips in the playlist will also move the previous selected clip
1331 No help is shown when F1 is pressed while a VST plugin window is focused
10357 Note properties window sometimes closes immediately if you double click a note in the piano roll
11271 Passwords containing some specific characters can't unlock the program
11578 Picker panel: "select in playlist" option doesn't work correctly for unused clips
11250 Playlist: right-click on sub items of "Mini playlist preview" closes the popup menu
11246 PPQ control in project settings doesn't revert to original value when the user cancels the change
11064 Pressing escape on the make unique window confirms the action instead of canceling it
11046 Quick legato tool in the piano roll doesn't extend the last note to the end of the bar
11269 Replacing an instrument track's channel doesn't always update the color in the playlist and mixer
11156 Sample start knob in sample settings shows as enabled for 3x Osc
11364 Setting a MIDI Out channel as an instrument track shows a track assignment message
11557 "Show file(s) when complete" option is visible when rendering mixer tracks to file
11280 The macro 'Select unused channels' is very slow
11049 The size estimate in the render window is wrong when "Split mixer tracks" is enabled
10812 "Track already in use" error when assigning an empty instrument track in a new arrangement
11182 Using "Quick Legato" on an empty piano roll crashes
-
11617 Boobass: crashes and corrupted audio when some notes are played
11102 Control Surface: controls act as though they're endless when large changes are made
11103 Control Surface: the digits control isn't precise with large values
11145 Control Surface: cloned keyboard controls don't work correctly
11154 Control surface: the "Stay down" property of a button isn't preserved when it's duplicated
11144 Control surface: duplicating controls between instances of the plugin doesn't copy all properties
11564 Control surface: the font color property of buttons doesn't work correctly
11724 Convolver: crash or weird behavior when changing the envelope tension
11163 dB Meter: label for lowest value shows -34 instead of -36
11742 Delay 3: High pass filter is active when Tone is centered
11684 Diagnostic: copyright year in the report is incorrect
10735 Diagnostic: invalid information for audio devices
11025 Diagnostic: plugin search paths aren't shown
11159 Diagnostic: shows "0" result for tests that weren't executed
11774 Diagnostic: report shows incorrect storage space information
11186 DirectWave: visual position of sample start in the sample display is not updated on automation
11075 DirectWave: report the preset size to the host so it can show a "large file size" warning
11179 DirectWave: nothing happens when a FLAC file is dropped onto the plugin
11746 DX10 and Granulizer: incorrect names for the voice filter cutoff and resonance parameters
11350 Edison: Spectrum view crashes
11131 FLEX: clicking on presets while downloading a pack shows an error message
11212 FLEX: any/all selector for tags does not look like a button
10179 FLEX: stuck notes when the arpeggiator switch is turned on while notes are playing
11376 Formula Controller: wrong hint for ABC parameters
11141 FPC: drag and drop from bank B to A doesn't work

11580 FPC: the output offset control doesn't allow the full range of 125 tracks
11494 Fruity Filter: high cpu usage in the performance monitor when Center is on
11758 Fruity Filter: crash automating the Center control
11336 Limiter: safety menu doesn't reflect actual value
11701 MIDI Out: "Send pan, volume and pitch" isn't correct initially
11268 Morphine: selecting the noise preset "Dusty Vinyl" in the morph/mix tab will cause a freeze
11759 Newtime and Newtone: non-automatable controls show automation items in their popup menu
1795 Notebook & Notebook 2: the window is not scaled correctly for some old projects
11122 Patcher: error when rendering ZGE Visualizer
11120 Sytrus: incorrect hints for oversampling controls
11752 Transistor Bass: sequences are not played when smart diable is activate
11338 Tuner, Frequency Splitter and Frequency Shifter: logo isn't shown
11080 Wave Traveller: difficult to set precise values by tweaking controls
10807 / 10330 Wrapper: parameters changed by the Console 1 plugin don't show up right on its OSD
11689 Wrapper: key presses with CTRL, ALT or SHIFT aren't sent to VST3 plugins correctly
11426 Wrapper: smart disable setting isn't correct sometimes
11347 Wrapper: VST3 plugins can't receive MIDI program change messages
11367 Wrapper: VST parameter changes are not undone correctly
11794 Wrapper: Waves plugins crash when tweaking a control
11134 ZGE Visualizer: crash rendering a video
11342 ZGE Visualizer: editing and saving the .zgeproj file does not always refresh automatically
11643 ZGE Visualizer: freeze rendering with a specific preset
11140 ZGE Visualizer: unable to save a still image
11594 ZGE Visualizer: Youlean Oscilloscope does not use the Audio Src selection
11738 ZGE Visualizer: crash when loading presets
11188 ZGE Visualizer: freeze during export when automating Image Source from a bitmap to a video
11210 ZGE Visualizer: adjusting text from a wizard preset doesn't always save the new positions
11242 ZGE Visualizer: sync issues when using multiple preloaded videos
11252 ZGE Visualizer: some videos aren't preloaded because the size estimation is wrong
11272 ZGE Visualizer: webcam input has too much latency
11298 ZGE Visualizer: some presets crash when used on Apple Silicon
-
11213 Scripting: repeatMidiEvent sets status of message to 32 instead of its expected value
11534 Scripting: setParamValue doesn't work for effect plugins
11491 Scripting: calling device.midiOutMsg from OnDeInit event will crash the program
11059 Scripting: crash loading the MIDI script for Novation Impulse

(macOS)
10460 Crash when clicking OK on the "beta has expired" message
11496 Diagnostic: FL Studio version number is shown as 0.0
11353 Filenames with special characters are displayed incorrectly
10829 Graphical glitches when closing the program
11207 Incorrect memory usage number shown on Big Sur
11330 Intel only VST and AU plugins aren't found when FL Studio is running in Rosetta mode
11770 Loading AIF format samples crashes on Apple Silicon
11468 Minimize button doesn’t work on native ARM build
11037 Mini piano roll preview in the channel rack doesn't update correctly
11109 Mini playlist preview in the channel rack doesn't always update correctly
11068 Piano roll: graphical glitch when stretching and resizing notes
-
11486 Control Creator: native ARM version crashes on termination
10879 Diagnostic: version shown for Big Sur is 10.16 instead of 11.x
11778 Diagnostic: wrong macOS version shown (Intel)
11735 Diagnostic: latest macOS version is detected as 32 bit
11292 Edison: "Rename all" crashes
11520 FL Studio AU: no sound when the plugin is used in FL Studio
11544 FL Studio AU doesn't work in Logic Pro on Apple Silicon
11622 FL Studio VST and AU: cursors don't always update correctly
11000 Newtime and Newtone: crash when deleting one instance on macOS Big Sur
11609 Newtone: send to playlist and saving a sample don't work
11582 Parametric EQ 2: heatmap doesn't work on Apple Silicon

11264 Stereo Shaper: the left and right speaker icons are not shown
11704 Sytrus: no audio when Pluck is active on Apple Silicon
11314 Wrapper: crash opening Slate Digital plugins
11720 ZGE Visualizer: crash when loading some .jpg files

(Windows)
11110 Program doesn't function correctly after the "beta will expire" message was shown
-
11511 DirectWave: the selection window is not shown when opening a multi-instrument soundfont file

20.9 beta 4 (2021/07/15)

Changes
11340 Added a menu to select at what point in the audio chain to record audio
11236 Added context aware type-in value support for automation clip editing
11540 Improved checking of changes in browser search folders
10399 Undo of channel and effect preset loading is now possible
-
11281 Patcher: the map tab is now a static workspace with scroll bars
8991 Patcher: hold ALT key when dropping a plugin preset to add it without any connections
11411 Patcher: Plugins added from the menu are now put at the mouse click location

Bugfixes
11513 Audio recording can create ghost clips and out of sync clips
3792 Audio recording is delayed incorrectly when there is latency
11332 Crash when undoing adding a (detached) plugin
11399 Clips in the playlist aren't shown after recording audio
11521 Cloning a pattern and then undoing this corrupts later patterns on the playlist
11343 Crash on undo and redo of "render and replace" of a pattern
11506 Crash when undoing and redoing "Assign to new instrument track"
10799 Crash when the channel rack filter changes after deleting a channel
11536 Huge sample files aren't loaded completely
11328 New channels show steps instead of the mini PR view
11553 No file is rendered when arming a mixer track and rendering to wave file in the mixer
11465 Quickly arming and disarming tracks while recording breaks undo
11556 Recorded audio is aligned incorrectly
11326 The audio recorder doesn't insert sub tracks for new takes on audio tracks

(macOS)
11397 Crash when opening FL Studio in macOS High Sierra
-
11358 Edison: reverb sample import window is shown multiple times

20.9 beta 3 (2021/06/28)

Changes
11374 Added undo for changing the child channels of a layer

Bugfixes
11472 Clicking "arm" button in the mixer doesn't work when "auto linked modules" is off
11463 Crash during undo of moving effect slots
11371 F2 renames a playlist track instead of a clip, after the playlist track header was clicked
11464 Freeze when changing the input for an armed track while recording
11392 Inserting channels can crash or freeze
11216 Issues because of renaming parameter names in an automation channel's target links editor
11481 Loop recording is out of sync and takes are too short
11389 Loop recording doesn't stop when latency is larger than the loop length

11400 Recording doesn't start and stop properly when tracks are armed or disarmed during recording
11438 Recording starts before the countdown finishes
11388 Recording doesn't stop properly when closing the program or switching projects
11383 "Show advanced controls" sometimes shows a bogus loop point selector in the channel rack
10451 Temporary undo files aren't deleted automatically
11477 Track latency is incorrect while recording with an external input
11370 "Type in value" for the channel track number is incorrectly set to normalized
11452 Undo of moving a clip around doesn't change the clip channel's routing if that was changed
11425 Wrong hint for min/max knobs of an automation channel in the channel rack
-
11462 Frequency Shifter: the L/R Phase knob can't be set correctly by "Type in value"
11381 Frequency Shifter: the frequency knob can't be set correctly by "Type in value"

(macOS)
11330 Intel only VST/AU plugins cannot be scanned even when FL Studio is running in Rosetta mode

20.9 beta 2 (2021/05/14)

Changes
10950 Loop recording is more stable now
4579 "Generic links" have been renamed to "Global links"
11238 Added context aware type-in value support to XYZ Controller, Send, Tuner
11237 Added shift + right-click to add nodes at the current value of an envelope
11194 The hint for mixer send knobs now shows dB values
11137 Dropping a preset on one of the selected playlist tracks creates an instrument track for each

(macOS)
11303 Now uses an improved memory manager

Bugfixes
(common)
11233 Automation clip editor's grid doesn't update until the window is resized
11211 Consolidation of multiple playlist tracks is broken
11225 Ctrl + click on the playlist track selectors doesn't also select clips on the track
11222 Detached automation clip settings window doesn't respond to input when the keyboard is open
11191 Dropping a generator on a mixer track creates a "load mixer state" undo entry
11196 No instrument track created when dropping a preset on a track header without a selection
11218 No undo when changing the color of a channel
11216 Names in the target links editor of an automation channel aren't updated when renaming a plugin
11251 Playback cursor remains visible after previewing a note in the envelope editor
11190 Playlist tracks are too easily grouped when resized
11259 Undoing changes to an automation clip resets the settings window editor's zoom level to full view
11273 Undoing "auto assign channel mixer track" doesn't reset the mixer track name
11226 Using the zoom tool in the playlist over track headers will select those tracks
11227 When "detach all plugins" is on, there's a crash during undo of adding a plugin
-
11187 Flangus: access violation after loading the "Kroko" preset in Patcher
11284 Slicex: the popup menu for a marker shows "Turn into marker"

20.9 beta 1 (2021/04/09)

Changes
10160 **Added multiple selection of playlist tracks**
9272 **Most changes made in the program itself can now be undone and redone**
1832 **Support huge samples when saving, loading and editing** (64 bit lengths instead of 32 bit)

9827 **Automation clip envelopes can now be edited in the channel settings window**
10634 Added "Alternate undo mode" option in General settings to change the undo and redo shortcuts
10119 Added a new "Edit automation clip" item to the automated control's popup menu
9977 Added the ability to edit the target links for automation clips in the channel settings window
10914 Allow semitone values in the "Type in value" window for the channel pitch bend range control
10205 In the channel rack, clicking on a channel selector now behaves as it does in the playlist
10301 In the playlist, ctrl + up or down now selects a track. Ctrl + Alt + up or down extends the selection
11032 Send a device identification message when a new MIDI device is detected
10955 Show context aware values in the 'Set' window for controls and plugin parameters
10183 The "merge clips" keyboard shortcut now works regardless of the selected clip types
10432 The "shared" program files are now no longer shared between instances of FL Studio
-
9901 Support context aware values in the "Type in value" window for parameters of these plugins: Stereo Enhancer, 7 Band EQ, Flangus, Panomatic, Blood Overdrive, Fast Dist, Kick, Delay 2, X-Y Controller, Wave Shaper, Ogun, Harmless, Granulizer, BooBass, FLEX, Beepmap, FL Keys, Soft Clipper, Parametric EQ

Bugfixes
(common)
11030 Incorrect cursor on the color button in "name" edit windows
-
3225 Diagnostic: some newer CPU instruction sets aren't shown

20.8.3 (2021/03/25)

Bugfixes
(common)
11104 Scripting: access violation when the device.midiOutSysex() function is called
11118 Scripting: crash on startup when a MIDI script is used

20.8.3 (initial release) (2021/03/17)

Changes
10936 Added buttons to copy gradient colors in the color selector
10873 Use new open and save dialogs everywhere in the program itself
-
11012 ZGE Visualizer: added warning when exporting uncompressed video files
10971 ZGE Visualizer: use new open and save dialogs

Bugfixes
(common)
10998 Automation of the mix level knob for effect slots is compensated by the wrong latency value
11031 Envelope editors don't show hints when the mouse cursor is moved over them
10974 Linked controls are updated in increments of 2 instead of 1 for the Fire controller
10913 Env Editor: hints do not follow FL hints rules
10654 Crash with audio loop recording in FL 20.8.1
10263 Gradient editor in color selector gets wrong color for defaults
11011 It's not possible to select an empty filter group in the Channel Rack
9032 Note color in the piano roll is different when the color dialog is opened and accepted
10246 "Render all playlist tracks" (and track groups) doesn't render from the song start
11038 Render to DWP file holds a lock on the resulting file so it can't be deleted
11004 Some colors can't be selected in the color dialog if the "safe colors" option is enabled
10970 The audio clip list in the Picker Panel is not updated after rendering the pattern
11006 The same size is shown in the render window when trying to render a 24 bit or 32 bit wave file
11016 The selected Channel Rack filter group is not remembered
-

10984 DirectWave: the about screen doesn't display a waveform at 200% scaling
11040 Distructor: incorrect value shown in the control popup menu when used in Patcher
10941 DrumSynth Live: incorrect hint for the OSC 2 envelope shape
11008 DX10: the sound is different in version 20.8.2 compared to earlier versions
590 Edison: plugin window doesn't snap to edges when resizing
11047 Edison: metadata is not saved to wave file
10937 FPC: the pad popup menu affects the selected pad instead of the one that was clicked on
10935 FPC: no hint shown for pads
11033 GMS: the preset list doesn't have a scroll bar
10983 Maximus: inconsistent selector types for the Time smoothing option in the Options menu
10994 Maxx plugins: visual glitches when using 300% legacy scaling
11018 Slicex: trigger notes are not saved
11001 Stereo Shaper: some visuals are misaligned
11057 Wrapper: the sidechain menu treats entries that start with "-" as a caption
10925 Delay 3: crash when tweaking controls

(macOS)
10940 The Detached option is enabled for plugins that can't be attached but have to remain detached.
10258 Various visual bugs related to using multiple screens

20.8.2 (2021/02/25)

Changes
10657 Improve the project size warning dialog
4838 In the channel settings window, show what stretch mode is used when Auto is selected
4953 Open either the channel rack or the playlist depending on where you click on the Pat/Song switch
10692 Plugins can now send note off velocity for preview notes
10779 Show a warning message on exit if the user changed the language
4620 Added "Ungroup selected" item in popup menu for patterns in the picker panel
-
10662 3xOsc: add context aware type-in value support
10738 Control Surface: added "Scrollbar color" property for the keyboard control
10819 FL Keys: added context aware type-in value support
FL Studio Mobile updated to v3.5 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)
7005 FPC: pads can now be duplicated by drag and drop
10683 Parametric EQ 2: Add note snap values from band token popup to frequency knob popup?
10499 Tuner: response time (previous fast mode) can now be defined with more precision
2758 ZGE Visualizer: allow export of final output audio
-
10836 Scripting: added device.getLinkedParamName function
10832 Scripting: added device.getLinkedValueString function
10830 Scripting: added Next and Previous preset selection functions in plugin module
9735 Scripting: show text values for Keyboard Controller, DX10, DrumSynth Live, Kick and Plucked

(macOS)
#9311 Various improvements to work properly under Rosetta 2 on Apple Silicon

Bugfixes
(common)
6850 Access violation while loop recording
10252 "Clone with links" doesn't show when the automation clip isn't selected in the channel rack
10355 Color dialog's random button only uses a limited range
10356 Color dialog's random button doesn't pick unsafe colors if the "lock to safe colors" option is off
10789 Crash report: reset time stretch while a 3rd party plugin is open
10797 Crash unlocking FL Studio
6867 Crash when steps in the step sequencer change
10731 Empty project is opened unnecessarily at program startup
10693 Different hints on the Fire display and in the program
10655 First point of merged automation clip can get lost in some cases

6868 Freeze when loop recording runs out of playlist tracks
10559 Notes in the graph editor show zero for the octave
10609 Crash in tempo detection
10902 No save dialog when you exit the program in trial mode after making changes
10732 Piano roll: looped ghost notes are shown on top of real notes that cross the loop marker
10667 Pressing cancel on the restart message after unlock doesn't close the unlock window
10918 Recording to an audio track doesn't place clips on that track (or subtracks of it)
10746 "Set" menu item is missing in plugin parameter popups
4834 Selecting items in the browser sometimes shows "Loading: Startsnd.wav" as a hint
10760 The channel rack doesn't switch to "All" when all channels in a filter group are deleted
10696 The disk space displayed on the render window is incorrect for large values
10857 The language change warning doesn't show the current language name on the Revert To button
10666 The Newstuff demo project is not shown if the user unlocks on first startup
10660 The plugin performance monitor doesn't scroll when using up and down keys
10834 Waiting for input doesn't respect the selected recording filters
10833 Waiting for input doesn't stop when recording is canceled and "Only when recording" is checked
-
10817 Chinese characters missing in various plugins on Mac
10665 Beepmap: crash to desktop
10728 Control Surface: digits control doesn't adjusts font size on higher scaling
10921 Dashboard: internal controllers set their destination control to zero
10804 Delay 3: noise when using the plugin for a while
10690 DirectWave: channel volume is ignored when playing notes on the plugin's preview keyboard
10687 DirectWave: resizing handles for zones aren't scaled properly
10555 DirectWave: selection window is not shown when loading multi-instrument soundfonts
10715 FLEX: macro names are not shown in correct case
10803 FLEX: some presets sound different than before
10825 FLEX: error on free or store tab while clicking on most presets
10915 FL Slayer: crash when its engine dll is not present
10729 Fruity 7 Band EQ: old settings cause cpu issues
10762 Fruity Convolver: unpublished controls do not show parameter value on hover
10659 Granulizer: logo animation is active when animations are disabled
10673 Maximus, Parametric EQ 2: glitches at some sample rates if LIN mode and oversampling are on
10540 Patcher: VST pitch is incorrect for voices received from a VFX plugin
10924 Patcher: last parameter in MIDI out is deactivated when another knob is configured
10911 Some plugins show incorrect note names
10724 Wrapper: Waves 12.8 plugin window disappears when using its preset browser
10805 Wrapper: VPS Avenger crashes when its editor window is closed
10713 ZGE Visualizer: Neptune Racing effect has visual glitches
--
10927 Scripting: plugins.setParamValue only works for first plugin on each track
10717 Scripting: raw long hint shown for some plugin parameters

(macOS)
10829 Momentary visual glitch while the program closes
-
10930 Video Player crashes
10768 ZGE Visualizer: export problem on Big Sur

20.8.1 (2021/01/21)

Changes
(common)
10488 Added filter option to plugin performance monitor
10388, 10424, 10453 Changed accelerator key for "Paste value" in some menus from "p" to "v"
10508 Increased the maximum width of the mixer so all tracks can be shown without having to scroll
10573 Moved piano roll Helper options to View menu
10336 Open plugin performance monitor window when the user double clicks the CPU panel
10596 The maximum width of the touch keyboard window now depends on the key size

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10522 Granulizer: added context aware type-in value support
10649 Granulizer: added logo animation like in FL Studio 11
10207 Keyboard Controller: keys light up when notes are active
10403 Diagnostic: added more information about the computer's screens
10444 Maximus: added Monitor Input selector option in the settings menu
10208 PanOMatic: internal modulation is shown on the XY control
10470 Parametric EQ 2: added context aware type-in value support for frequency and gain controls
10542 ZGE Visualizer: added an option to preload audio, to allow videos with audio playback
-
10604 MIDI scripting: allow selection of next and previous plugin preset
10590 MIDI scripting: channels.selectOneChannel now scrolls to the selected channel
10588, 10589 MIDI scripting: added screen functions: removeTextLine and addMeter
10586 MIDI scripting: added getLastPeakVol function
10579 MIDI scripting: Added channels function: getActivityLevel
10578 MIDI scripting: Added patterns function: burnLoop
10557 MIDI scripting: Added optional parameter to channels.showCSForm to allow closing a window

Bugfixes
(common)
10613 Date in news panel can be too long for the available space
10505 English help is shown when Chinese language is selected
9234 Fire: Access violation setting loop options
10580 Fire: Notes played in drum omni mode are not displayed in the hint panel
10576 Fire: Alt + Jog doesn't work correctly with grouped channels
10575 Fire: Alt + Mute doesn't work correctly with grouped channels
10585 Formulas are translated in the "Link to controller" window
10592 Items that start with a lowercase letter are sorted after all items that start with uppercase
10597 Keys on the touch keyboard window show out of bounds and disappear from view
10587 Channel links to instrument tracks may be broken after moving them in the channel rack
10564 News panel doesn't show any items
10641 Plugin performance monitor does not scroll with mouse wheel
10535 Potential crashes when routing plugin inputs and outputs
10506 Randomization of trial mode exit pages doesn't use all pages
10431 Record button looks wrong when pressed
10624 SG.dll and SG_x64.dll missing when starting older FL Studio versions
10300 "Shift notes" in the playlist affects hidden collapsed groups
10515 Smart disable state turns back on when "Allow smart disable" is disabled and re-enabled
10462 System buttons on the FL Studio toolbar have the wrong color when changing from flat to 3D
10518 Test log shows warnings for every test if there were warnings in an earlier test
10610 Touch keyboard: current root note is not checkmarked in the selection menu
4758 Tweaking precomputed stereo delay with long sample causes error
10630 Wrong upgrade options shown in the shop when you own All Plugins Edition
-
10543 Control Surface: deleting multiple controls at once will cause an error
10536 Control Surface: checkmark in checkbox controls is not scaled
10556 DirectWave: automated parameters always change to minimum or maximum values
10489 Distructor: visual glitches can occur in some cases
10473 FLEX: Master Filter type isn't saved when the Master Filter panel is locked
10554 FLEX: access violation when the user data location is set to a read-only folder
10550 FLEX: potential access violation when download of pack fails
10548 FLEX: arpeggiator state os not set correctly when loading projects from older versions
10519 FL Keys: loading the Rhodes instrument doesn't initialize controls correctly
10491 Frequency Splitter: legacy mode is saved but ignored when loading settings
10647 Fruity Free Filter: mix level not applied properly
10454 Gross Beat: "Delete" and "Move semitone down" in the node menu have the same shortcut key
10583 Maximus: low pass linear mode filter slopes change when oversampling is used
10534 Maximus crashes using negative values in the compression envelope
10439 Parametric EQ 2: SIDE / MID frequency histogram monitoring is not correct
10457 Parametric EQ 2: graphic glitches on rounded buttons at 100% scaling
10463 Parametric EQ 2: playback stops for a moment in LIN mode when band solo is turned on

10607 Parametric EQ 2: change order of heat map menu items to match Maximus
10561 Parametric EQ 2: access violation when resizing
10419, 10455 Parametric EQ 2, Frequency Splitter: frame rate drops when the plugin is maximized
10645 Parametric EQ 2, Frequency Splitter: inverted dB scale in hint bar
10443 Parametric EQ 2, Maximus: LIN mode is broken when the sample rate is 96 KHz
10450 Parametric EQ 2, Maximus: LIN mode crashes when the sample rate is 22 KHz
9864 Patcher: crash activating audio inputs on the "To FL Studio" module
10162 Patcher: crash when changing routing in Fruity Limiter
10538 Patcher: crash calculating audio peaks while adding IO
10533 Patcher: freeze when activating inputs on "From FL Studio"
10495 Plugin Manager: Combine 32/64 bit option doesn't work
10552 Scratcher: erratic scrolling in the wave scope
10438 Some plugin logos are translated when they shouldn't be
10551 Sytrus: mouse wheel can only be used to scroll the keyboard to G#2
10560 Transistor Bass: new engine doesn't react to pitch transpose changes
10640 Transistor Bass: channel 13 transpose doesn't work in engine V2
10440 VFX Level Scaler: parameters are not updated correctly when the relevant tab is not selected
10526 Wrapper: unsoloing a track with Console 1 doesn't properly unmute other tracks
10525 Wrapper: muting a mixer track with a Console 1 instance makes the program unresponsive
10643 Wrapper: muting the Waves Metafilter Stereo plugin freezes the application
10507 ZGE Visualizer: RGB Shift effect shows error on certain GPUs
10514 ZGE Visualizer: preload "Compress" option doesn't work in 32 bit

(windows)
10445 Korean font doesn't look good
10496 Some unicode characters are not drawn by the font engine

(macOS)
10471 Memory leaks when opening a JPEG image
10421 Chinese font looks doesn't look good
-
10459 FLEX: pack images are displayed incorrectly
10436 Parametric EQ 2: audio artifacts when resizing during playback
10621 Wrapper: context info sent from a plugin is not processed by the host

20.8 (2020/12/09)

Bugfixes
(common)
10428 Crash report: resizing text of items in the browser sometimes crashes
10415 Mini Piano Roll in the channel rack displays the wrong bar count in the hint panel
10429 Multitrack audio recording put the clips in the wrong Playlist tracks
-
10423 Edison: freeze when using the denoise tool
10420 Patcher: missing connections in some factory presets
10418 Wrapper: "Allow smart disable" option doesn't work

20.8 RC 6 (2020/12/07)

Bugfixes
(common)
10409 Latency if a track changes if its send level is changed from zero to another value
10407 Mixer slot numbers on the file size warning message start with 0 instead of 1
10401 Automating the send level causes lower GUI frame rates when the mixer window is very big
-
10402 Control Surface: incorrect size after duplicating a control by dragging the menu item
10384 Diagnostic: incorrect Windows version reported

10412 Edison: garbled text in the Chinese translation when the Claw Machine tool is used
10408 Edison: crash using the "Tune Loop" tool
10413 Fruity Slicer: freeze when loading a sample during playback
10404 Parametric EQ 2: spurious audio generated when Linear mode is on
10410 Wrapper: Crash when mapping outputs for a plugin

(macOS)
10212 DirectWave: sample view controls are not visible

20.8 (RC 2 - 5) (2020/12/05)

Changes
(common)
10375 Frequency Splitter: LIN speed can now be set in milliseconds when using "Type in value"
10364 Wrapper: added channel aftertouch parameters for every MIDI channel to non-native plugins
-
10368 Scripting: added the function "plugins.setParamValue"

Bugfixes
(common)
10352 A folder icon is displayed on the dry/wet control in the toolbar for effect windows
10347 Changing the filter group of all channels in a group to another one jumps to the wrong group
10351 Deleting the current filter group in the channel rack doesn't add those channels to "Unsorted"
10333 Elastique dll crash when the sample rate of a sample is very low
10386 "HQ for all plugins" option prevents latency compensation when consolidating
10350 Memory leak in plugin and licenses tests
10366 "Set..." menu item is missing from control popup menu in plugins
-
10353 Control Surface: duplicating a label control by dragging doesn't set the correct the text
10359 Control Surface: duplicating a slider leads to visual glitches
10378 Frequency Splitter: missing hint when hovering over the visuals display
10363 Frequency Splitter, Maximus and Parametric EQ 2: improve the frame rate of the histogram
10391 Maximus: switching between legacy FIR mode and LIN mode doesn't switch it back to non-linear
10396 Maximus, Parametric EQ 2: high CPU usage when parameters are automated
10354 Maximus: LIN mode uses low cutoff when the low band is turned off
10385 Maximus: access violation when LIN mode is enabled (32 bit)
10389 Parametric EQ 2, Maximus: automation is ignored when rendering audio
10392 Parametric EQ 2: histogram updates slower than in other plugins
10390 Parametric EQ 2: 22050 Hz noise in linear phase mode
10379 Patcher: presets from FL Studio 10 open with incorrect links
9624 Patcher: sidechain audio nodes from FL Studio are not active when a project is opened
10329 Various plugins: envelope editor doesn't show the step value while changing tension curves
3109 Wrapper: pitch and pitch bend range messages are only sent on MIDI channel 1
10365 Wrapper: VST3 plugins don't respond to channel aftertouch
10372 ZGE Visualizer: the plugin menu appears on all tabs

(macOS)
10398 Plugin Manager: Crash when opened from the More... window
10367 Plugin Manager: all VST and VST3 plugins fail to scan

20.8 RC1 (2020/11/26)

Changes
(common)
10297 Add a "Flat buttons" option for the toolbar
10043 Added an option to clone automation clips with their links
6588 Added an option to remove an initialized value for a control

9931 Added an option to set the size that triggers the project data size warning
10080 Added a reset button to the user data location error dialog show at startup
10071 Added a warning when importing the Swing value from old projects
10182 Audio from a sample's channel can now be copied to and pasted from the clipboard
4389 Automation clips can now be merged
647 Don't automatically open all new channel settings windows after importing a MIDI file
9736 Don't interrupt audio playback when loading a plugin
9886 Improved the message shown when a license expired or is about to expire
9142 Increased precision for control and parameter automation
9597 Most menus now don't close when right-clicked to check or uncheck an item
10063 Restart instead of just closing when scaling, language or user data location have changed
9900 Some plugins can now convert text to a control value when 'Type in value' is used
6513 Support for display languages other than English
9959 Use HTTPS instead of HTTP for any url opened by the program
10091 Use the "Microsoft YaHei" font for the Chinese simplified language
-
9392 New plugin: Frequency splitter
6054 New plugin: Tuner
10082 Diagnostic now includes the most recent crash logs in its report
9982 Control Surface: it's now possible to duplicate a control
9932 Convolver, Slicex: report estimated data size to FL Studio when saving
9967 FLEX: added Arpeggiator button
7813 FLEX: new view modes in the pack and preset browser
10008 FL Keys: show parameter value when the mouse is over a control
FL Studio Mobile updated to v3.4.8 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)
9768 Maximus: added Linear Phase Mode
9920, 10248 Maximus and Parametric EQ 2: added frequency histogram option
9795 Parametric EQ 2: added band/token solo feature
10010 Parametric EQ 2: added hints in popup menus
9625 Parametric EQ 2: added HQ2 mode option
9569 Parametric EQ 2: added Linear Phase option
9794 Parametric EQ 2: added phase shift line
9781 Parametric EQ 2: better position for hint shown when dragging a band
9776 Parametric EQ 2: removed inner border from Editor window
10009 Parametric EQ 2: show parameter value when the mouse is over a control
9849 Parametric EQ 2: updated the visualization
9907, 9969, 9999 Parametric EQ 2: added band solo modes
10056 Parametric EQ 2: increased default size of the editor window
10088 Parametric EQ 2: in adaptive mode, bands keep their bandwidth while holding Shift
9438 Transistor Bass: added option to select a specific engine version to use (for compatibility)
10025 Video Player, ZGE Visualizer: reduced CPU usage during video playback
10074 Video Player, ZGE Visualizer: improved playback sync
9374 Wrapper: added a troubleshooting option to increase the framerate for plugin editor windows
5354, 7017 Wrapper: some track information can now be shown in VST3 plugins and changed by them
9688 ZGE Visualizer: dragging and dropping images creates an image layer
9872 ZGE Visualizer: option to "Save still image" to a custom size
10118 ZGE Visualizer: Preload video clips to memory for improved performance and synchronization

(windows)
9892 ZGE Visualizer: use Nvidia accelerated codec for MP4 video

Bugfixes
(common)
10239 Audio clip rerouting on audio tracks doesn't always work
10130 Automatic application restart doesn't work properly on macOS
10178 Can't set advanced looping after creating a channel
9992 Channels that can't be routed to the mixer show "Master" in the channel window caption
10244 Checkmarks in the test window are not scaled properly
9909 Crash report: Automation clip cut into two without two automation clips (disconnected line)
7747 Crash trying to drag and drop from browser
10042 Crash when dropping files from a file open/save dialog onto a detached window

9904 Crash while getting the ASIO device sample rate
9161 Cut itself increases volume
10099 DC offset or invalid data generated by plugins
9267 Dragging audio from a speech channel drags the .speech file instead
10105 EQ Width knobs on the mixer window don't show the correct hint value
10117 Envelopes folder in browser doesn't show user data
10131 "Export all playlist track groups" doesn't work if there are no clips in the parent track
9870 Hint shown for a selected chord doesn't show # but 0 instead
10315 Hints for channels in "Current project" show "%d" instead of the parameter count
10144 Information button on the data size warning message doesn't work
10202 Loading a project with multiple arrangements creates auto-saves for every arrangement
10201 "Lock to this size" on Playlist track headers is unlocked by clicking the header
10049 Low framerate for the user interface after upgrading to Windows 10 build 2004
9726 Making batch changes to patterns results in too much processing
10158 Messages with a listview don't respond to double-click in the list
9997 Mixer window is wider than its maximum width when maximized
10068 New destination path is not shown in a message while changing the user data location
10296 Non-quantized envelope points can prevent merging of automation clips
9914 Not all mute buttons for a channel are updated correctly when one is toggled
10231 Note count in the project info tab doesn't work
9998 Opening the help for a plugin shows the program folder instead when offline help is selected
10176 Project crashes on startup
9377 Rendering gets stuck in an infinite loop with certain marker types
10003 Resizing an audio clip from the left side stretches when that's off
10022 Resizing an audio clip for more than one bar changes time to 100
10311 The default formula in the controller link window is translated
10145 The More plugins window takes too long to show when there are a lot of plugins
10337 Track latencies are not updated when the send level changes
10019 Track number outline box is not present in the alternative mixer highlighting mode
10017 Visual artefacts resizing a collapsed panel in the channel settings window
9787 Unlock window doesn't immediately close the program if you unlock on first start
9944 Unlock window doesn't show help when F1 is pressed
10094 "Use Current time signature from" > "Playlist to Pattern" creates markers in wrong position
9981 Various bugs sorting text items in lists
9830 Various issues automatically coloring and naming items in track mode
9957, 9847, 1789 Various resource and memory leaks
-
10251 Control Surface: dragging to duplicate a control uses the wrong size
9916 Delay 3: sporadic noise immediately after instantiation
10260 DirectWave: popup menu items have incorrect "garbage" text when translated
10092 FLEX: pack browser doesn't resize to full height when the preview image panel is hidden
10303 FL Studio ASIO: error message when there are no inputs
10132 FL Studio VSTi: latency changes aren't reported to the host program
9985 Harmor: an additional arrow is displayed on some buttons
10086 Maximus: no phase cancel in LIN mode when 12db slope is on
10081 Maximus: latency in LIN mode doesn't take LMH delay and attack into account
10113 Maximus: crash when loading the project Demo songs > ANNA MIA
10165 MIDI Out: crash when configuring CC knobs
10186 Notebook 2: crash when automating the page
9983 Parametric EQ 2, Maximus: buffers are not flushed when LIN mode is resumed
9984 Parametric EQ 2: right click on HQ button (to open menu) highlights button
10069 Parametric EQ 2: linear phase mode is not updated when automated
10084 Patcher: voices from VFX plugins are not released when sent to VST plugins
6865 Patcher: connection to the FL Studio output node breaks when loading a project or preset
10110 Patcher: plugins are notified about the start of a new tick at the wrong time
10197 Peak Controller: overflow of output values when input values are high
10076 Plugin Manager: verifies all plugins even when "rescan" is not checked
10123 Plugin Manager: plugin type combo is not disabled when the plugin is already verified
10313 Some plugin parameters have incorrect ("garbage") value displays
10312 Some plugins don't report correct parameter names when translated
9744 Transistor Bass: cannot change patch in program C0

9743 Transistor Bass: channel pitch doesn't work
9745 Transistor Bass: tweaking Mod X/Y has no effect
10128 Transistor Bass: sporadic "pop" sound on startup
9975 Vocodex: freezes when changing presets
10157 Wrapper: freeze when a VST/VST3 plugin window is opened in Patcher at 150% scaling
9943 ZGE Visualizer: Audio Plane effect crashes when "Spectrogram band count" is less than 128
9987 ZGE Visualizer: click on the layer caption disables layer instead of just selecting it
10000 ZGE Visualizer: colors are lost when using Youlean Gradient Maker
9937 ZGE Visualizer: using Zoom or Rotate controls may cause the text in the wizard to disappear
10100 ZGE Visualizer: Access violations on Intel GPUs
10188 ZGE Visualizer: automating the enabled status of a layer doesn't show the layer as disabled
10135 ZGE Visualizer: export sometimes starts with a black or half-rendered frame
10185 ZGE Visualizer: post-processing error with the latest Nvidia drivers on a GeForce RTX
10229 ZGE Visualizer: crash when an external video file isn't found
-
9408 Scripting: changing values of X and Y modulation are not reflected in the hint panel
10307 Scripting: Freeze when more than one sysex message is received in a very short amount of time
10326 Scripting: "Linked device not assigned" error when rendering a project

(macOS)
10258 Red screens when using multiple monitors in macOS 11 "Big Sur"
-
10096 DirectWave: editor window can be resized to incorrect size
10087 DirectWave: the piano roll is missing
9995 FLEX: favorites do not save correctly when switching projects without closing the program first
10200 ZGE Visualizer: import video cue points does not line break correctly

20.7.3 (2020/09/29)

Changes
9681 Added an unlock window to replace unlocking from the about window
7025 Added batch export to .zip file to the command line options
9410 Added option Tools > "Export all playlist track groups" to the playlist menu
9542 Allow specifying a single filename instead of a folder for command line render to MIDI
6844 Better coloring of scales on the FL Studio Fire device when using different root notes
5169 Edit > "Make unique" in the playlist menu now applies to any clip type.
8993 Moved percentage column in performance monitor closer to the plugin name
1637 Peak meter now indicates potential clipping even when the audio driver doesn't require it
9697 Renamed Help > Purchase FL Studio, plugins and upgrades" menu
9435 Renamed View > "Note colors" > "Presets" to "Palette" in the piano roll menu
9560 Selecting a new source pattern for a clip optionally takes the start point into account
7565 Show a warning when saving a project with big wave data in Edison instances
9578 Show a drop location indicator when new channels are dragged to the channel rack
FL Studio Mobile updated to v3.4.2 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)
-
9757 Diagnostic: show better info about the version of Windows 10
9881 ZGE Visualizer: added parameters to mirror and flip source image to "Youlean From Buffer" effect
-
9549 Scripting: Added a function to select a channel exclusively
9559 Scripting: Added a function to work with pitch bend range
9618 Scripting: Added functions to get channel and mixer plugin info

Bugfixes
9628 Alt + left click can solo a channel but doesn't unsolo
9377 Audio export freezes when using skip markers
9558 Beat indicator doesn't respect time signature changes
9489 Browser doesn't refresh when there's a new file in an open folder after rendering
9616 Canceling the Advanced Fill tool doesn't remove the pattern length marker
9651 Changing multiple selected mixer sliders shows hint for a slider the user isn't changing

9782 Crash on startup because trying to open the file "Auto Saved.nvp"
9481 Crash on startup on some computers
9591 Crash opening a specific project: list index out of bounds
9256 Crash when importing a MIDI file
9748 Crash when loading an .aiff file
9211 Crash when trying to preview audio files in the browser
9464 Crash while loading a project
9809 Crash report: access violation
9855 Crash when adding controller links
7803 Detached Edison's window is not sized correctly after dragging a sample
9534 Disable auto-scroll when dragging content in to or out of the playlist
9876 Favorite plugin lists are sorted incorrectly when a folder name starts with a number
9705 Fill each 2 step deletes and locks steps in loop mode
9604 FL Studio opens unmaximized if it was closed while minimized
6069 Graph editor doesn't update when using the Fire device if a two knobs are used at the same time
9831 Make unique as sample is always disabled
8924 Mixer tracks can deselect unintendedly
9846 Mixer track rendering puts audio clips at the wrong place
8142 No key labels in the piano roll when scale highlighting is "automatic" and view is "root notes"
9521 Notes can get stuck when they're sent to Edison or other effect plugins that process notes
9587 Piano roll grid doesn't update when using the paint tool
9607 Playlist audio track recording creates new tracks on additional takes even when not necessary
8586 Playlist items in a hidden group can be deleted
9622 Plugins aren't always sorted correctly in the favorites menu
9602 Potential bug removing plugins
9600 Potential crash when loading a state for some plugins
3150 Pressing F2 when a detached plugin is focused renames the pattern instead of the plugin
9723 "See the news on our website" opens the main page instead of the news page
9553 The original clip tempo hint changes when the time stretching method is changed
9928 Typo: some dialog text says "BMP" instead of "BPM" for tempo values
9273 Undo of recorded takes no longer removes all recorded clips
7979 Using the left/right arrow keys inside the main menu gets stuck on the Patterns menu
9551 Wrong hint for pitch
9722 Wrong order when dropping multiple files on the channel rack
-
4601 Control Surface: mouse wheel doesn't work on controls in some cases
8606 Control Surface: slider orientation is not being accounted for when resizing from the menu
9817 DirectWave: the editor window can't be made smaller after hiding and showing it
9459 Edison: crash in clean up / denoise tool
9547 Edison: crash when zooming in and out in spectrum view
9703 FLEX: crash selecting a preset on a second user account
9772 FPC: not all controls show a hint
9595 Fruity Dance: crash when loading an unexpected type of image
9596 Fruity Free Filter: creates DC offset or signal which mutes audio on playback stop
9304 Fruity Scratcher: the sample position doesn't change if the mouse reaches the edge of the screen
9515 Fruity Slicer: crash when loading sample with out of range markers in it
8171 Newtime and Newtone: editor window has an incorrect size when a project is loaded
5506 Patcher: double clicking a module doesn't focus the module's editor window if it's already visible
9879 Razer Chroma: control popup menus have unreadable text
9567 Wrapper: kCanAutomate and kIsReadOnly flags for VST3 plugin parameters aren't used
9679 Wrapper: triggering notes on VST3 plugins doesn't use the maximum possible velocity
9803 Wrapper: activateBus is sometimes called while processing is active for VST3 plugins
9802 Wrapper: activateBus is called incorrectly when a VST3 plugin calls restartComponent
9683 ZGE Visualizer: dragging a layer should auto-scroll layers into view
9670 ZGE Visualizer: source video sometimes stutters when exporting at 4k resolution
9890 ZGE Visualizer: "Passthrough" mode in BufferBlender effect does not work
-
9548 Scripting: channels.SelectOneChannel selects channel exclusively
9480 Scripting: pressing more than one pad simultaneously causing one of the pads to remain active

(macOS)

9769 Crash when saving Guitar Rig
9732 Crash in RestoreHiddenForms
7984 Left/right arrow keys close menus
9824 Plugin window glitches when minimizing FL Studio and a second screen is connected

20.7.2 (2020/08/07)

Changes
(common)
6878 Added option to disable automatic switching of the Channel Rack's display filter
9431 Added modifier keys to force showing (alt) or not showing (shift) the MIDI import options window
9315 "Select source channel" can now preserve the clip's start/end position for comp editing (hold Shift)
7386 Controls in the program now show their value as a hint when the mouse is hovered over them
9098 Internal presets of AudioUnit plugins are now supported
9276 Updated Intel Performance Primitives (IPP) to the latest version
9474, 9475, 9476 Most lists based on filenames now have numbers sorted logically (2 before 10)
-
9028 FLEX: added some small animations to the browser
9499 FLEX: publish patches for the selected pack as presets in FL Studio
9388 ZGE Visualizer: "Remove unused" button added to Image tab
9376 ZGE Visualizer: added logo to the plugin editor window
-
9316 Scripting: added an extra parameter to channels.channelNumber to optionally respect groups
9357 Scripting: added a function to retrieve the original name for the focused plugin
9321 Scripting: moved ProcessRECEvent to "general" module
9401 Scripting: added ui.HideWindow
9460 Scripting: scripts can indicate that an event is unhandled but requires no default processing.
9526 Scripting: added getRecPPQ function
9514 Scripting: added an extra parameter to ui.getVersion to get the version number as numeric values
9421 Scripting: added a function to activate "edit events in piano roll"
9420 Scripting: added a function to retrieve the name of the MIDI device the script is associated with
9219 Scripting: new controller script - Forward all Midi CC

(macOS)
4973 Hide detached windows when the application minimizes.

Bugfixes
(common)
9384 Automation delay compensation introduces visual issues with mixer track controls
9362 Automation of the mix level knob of a plugin is out of sync when slots are swapped
9361 Automating the mix level knob of a plugin with latency will cut sound for a little bit
9336 Can't choose channels used in another arrangement for "Instrument track > Use existing channel"
9490 Can't drop a clip from the picker panel on the last playlist
9370 Changing the wallpaper is not remembered, it reverts to the default when opening the program
9562 Channel loop marker in the piano roll doesn't move correctly when dragged
7111 Channel rack window doesn't snap to steps when resized after buttons are set to a preset width
9492 Child tracks in the playlist are re-colored when grouping a new track
9523 Click on Pattern/Song button doesn't refresh the song position display
9283 Copying a pattern time signature to the PL doesn't work
9282 Copying a pattern time signature to the PL uses the wrong marker
9003 Copy/paste of envelope data doesn't work between plugins
9510 Crash processing a MIDI message coming from the Fire device
8272 Crash report: Menu index out of range
9417 Crash when renaming plugins
9575 Crash when changing a channel's group to unsorted
9379 Crash with Maschine Controller when the recording precount is enabled

9363 Delayed automation goes to the wrong effect slot if two slots are swapped
9393 Deleting all empty channel display filters switches to the "all" filter when it shouldn't
8239 Dragging the PR "Save score as" menu to a PR in another FL Studio instance doesn't work
9577 Dropping samples in the channel rack doesn't always add a channel in the correct location
9365 Dropping a MIDI file on the first channel will show the channel type selector in the import window
9462 Dropping a VFX plugin on the mixer opens it in Patcher, but shows error message first
8394 Dropping a VFX plugin on the channel rack opens it in an effect instead of a generator Patcher
9461 Dropping a VFX plugin on the channel rack doesn't open the Patcher window
5968 Effect plugin names are lost when opening a mixer track state
9520 Error message when loading a DWP file after rendering a channel to DirectWave
9470 File lists in various places are not sorted correctly if there are numbers in the file names (WIP)
9570 Freeze when burning a channel to MIDI after creating a DirectWave instrument
9398 Hint for the Time knob in channel settings is broken
9488 Holding shift when replacing source channel in audio clips only works for the first selected clip
9079 Inconsistent behavior when focusing detached mixer, playlist and other windows
9452 Loading some .PNG files results in a black background
9366 Loop markers set to step/beat/bar won't update when adding/removing notes
9533 Mixer track control in channel settings window doesn't disable when set to an instrument track
9509 Mono/Stereo mode for "Export all playlist tracks" only applies to the first track
9491 No preview for dragged clips on the last playlist track
9350 Problem uploading to SoundCloud
9375 Recorded audio clips are placed one tick early in the PL
9358 Recorded notes are show even when they're deleted when recording stops
9425 Recorded clips change position when recording stops or loops
735 Rename dialog for channel groups shows up near the bottom of the channel rack instead of the top
9572 Rendering a channel to a DirectWave instrument causes glitches and data loss
9291 "Reset plugins on transport" causes clicks with some plugins
9364 Route level isn't shown correctly if the source track has latency
9217 Shift+Ctrl+C shortcut in the channel rack overrides global pattern clone shortcut
8979 Shift+up in the sample browser will focus SliceX, which steals the keyboard focus
9468 Renaming audio and automation clips in the playlist doesn't immediately update the picker panel
9571 The "Create DirectWave instrument" window has incorrect default values for some options
9322 Trim PDC on export doesn't work unless WAV export is selected
853 Typing the value for a channel's target mixer track mutes channels
9427 Tweaking mixer track controls causes visual twitching when there is latency
9296 Wrong playback position with playback tool and timestretch mode
9367 "Zoom out full" in the PL and PR doesn't use the correct time selection if it's past the song length
-
8527 Control Surface: can't select knobs after scrolling the view
9369 Control Surface: setting the background color of a label turns it black
9279 Edison: acquire noise profile doesn't work if the Denoiser option was off during clean-up
9415 DirectWave: dropping new samples messes up existing zones
9138 Distructor: artefacts with Asymmetry knob when "plugins reset on transport" is enabled
9439 FLEX: lag when changing packs in the browser using arrow keys
9503 FLEX: the selected patch is not immediately visible when opening the FLEX editor window
9502 FLEX: missing packs can't be downloaded from the "Problems loading the project" window
823 FL Studio VSTi: tempo sync option is not remembered
6005 FPC: access violation when changing samples after deleting an instance
9371 Wave Traveller: freezes when used in Patcher
9356 Wrapper: opening a shell plugin will show the "Troubleshooting" tab instead of the "Shell" tab
777 XYZ Controller: Absolute Mode is not recalled correctly when loading a preset
9403 ZGE Visualizer: Problem with presets that use "to buffer" with a value other than 100%
9386 ZGE Visualizer: Issue with Drop Shadow effect
9355 ZGE Visualizer: Performance issues when there are many videos in the list of image sources
9294 ZGE Visualizer: Youlean Oscilloscope does not enable the Audio Src dropdown
7141 ZGE Visualizer: several post processing effects do not support transparency
9466 ZGE Visualizer: videos exported sometimes do not work when uploaded to IGTV and Facebook
-
9320 Scripting: GetCurrentStepParam and SetStepParam don't work properly with groups
9506 Scripting: get/set channel Volume/Pan should respect channel groups

9504 Scripting: crash running device functions when the device is not connected
9519 Scripting: playlist.isTrackMuted returns the opposite value
9457 Scripting: getFocusedPluginName doesn't return the correct name for wrapped plugins

(macOS)
9368 Crash: "SListIndexError" when dropping a MIDI file on the channel rack
9229 Plugin Picker doesn't show up properly on very wide aspect ratio screens
9501 Tempo isn't read from MP3 files
-
9396 Edison: crash using "Generate Noise" when there is no sample loaded
9056 FL Studio AU: the plugin doesn't accept note input from the host application
-
9402 Scripting: ui.Left and ui.Right will produce strange characters inside the plugin picker search box

20.7.1 macOS update (2020/07/01)

Bugfixes
(macOS)
9394 Program crashes when a VST plugin is removed

20.7.1 (2020/06/15)

Bugfixes
(common)
9298 & 9299 Automation for some mixer track controls isn't applied when there is latency
-
9286 Scripting: ui.ShowWindow doesn't open piano roll when that is closed
9284 Scripting: impossible to select some values in graph editor from within FIRE
9190 Scripting: OnUpdateBeatIndicator is not called on count in
9126 Scripting: OnRefresh event is not called on all places where midi device should be updated

20.7.1 RC1 (2020/06/10)

Changes
9270 Focus the speech dialog text edit when the window is shown
9191 New: macro to remove all Edison instances
8874 Show "All plugins bundle" in about window
9231 Show a warning message when a mixer track route is deleted and a plugin was sending to it
-
9058 DirectWave: improved plugin loading time when the editor window is not visible
9071 FLEX: added Ctrl + Up and Down keyboard shortcuts to directly load previous and next presets
9216 Newtime and Newtone: added tempo display and tempo sync button to toolbar
9216 Newtime and Newtone: added "Use project time on load" option
9128 ZGE Visualizer: added more parameters to "Mobius Object" effect
9145 ZGE Visualizer: drop wave files to import list of video cues
9134 ZGE Visualizer: reduced video memory usage and increased performance for complex presets
9153 ZGE Visualizer: clicking on a video cue in the video cue list will now trigger this cue.
9223 ZGE Visualizer: fully transparent layers are now skipped to save CPU
FL Studio Mobile updated to v3.3.2 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)
-
9023 Scripting: added auto-detection of python devices
9124 Scripting: added mixer.isTrackMuted and mixer.muteTrack
9125 Scripting: added optional parameters for device.midiOutMessage
9131 Scripting: added pattern selection functions
9120 Scripting: added ui.setFocused function

9091 Scripting: added widPlugin option to ui.GetFocused function
9073 Scripting: scripts can now set a defined state for some functions
9207 Scripting: added optional parameters to transport.setSongPos
9248 Scripting: added function to get receiver port number
9237 Scripting: added optional value parameter for ui up/left/down/right functions
9226 Scripting: MIDI sync indicator doesn't turn orange when event is handled

Bugfixes
(common)
9204 Access violation when using the Kontrol F1 controller
9247 Audio/automation PDC switch in mixer menu doesn't set the project as "changed"
9166 Audio gaps at beginning of recordings with PDC
9193 Audio sent from Fruity Send is not correctly delay compensated
9065 Automated controls don't show the correct value when delayed
9105 Background picture and HTML filenames are stored without using environment variables
9111 Color names in the color dialog are not accurate
9269 Can't create speech file in a folder that has unicode characters
9188 Channel Settings don't open after the Channel has been renamed with Left+Shift Rename Dialog
9186 Color selector 'Preset colors' doesn't scale properly for non-integer scaling factors
9106 Crash when importing a MIDI file to FLEX
9025 Crash selecting from the "most recently used" files list
8906 Crash selecting a file or directory in the "save as" dialog
8225 Crash in TMIDIInDevice_Fire.ProcessMIDIMsg
9150 Crash Report - Division by zero after using Euclidean Fill Type in Advanced Fill tool
9010 Crash report: FLEngine_x64.dll Exception: Access violation in GetEventIDInfo
9202 Crash when opening the online menu
9179 Crash-log generation doesn't work for plugins
9170 Crash when rendering playlist tracks
9236 Crash when using the pattern picker's Right-click > Select unused option
8963 Create DirectWave instrument window doesn't remember some settings
9101 Drag line shows in picker panel after scrolling and then selecting an item
9035 Dropping a MIDI file on an empty space in the channel rack creates a new, empty channel
9102 Dropping multiple items in the picker panel on their original position behaves strangely
9143 Effect plugin windows are sometimes too narrow to show the mute button in the toolbar
9108 Events are incorrectly imported from a MIDI file that's dropped on a FLEX channel
9109 Events imported from a MIDI file have a low value when FLEX is used instead of MIDI Out
9156 Fix grammar for - FL Studio has encountered an error and need to restart
8930 FL Studio suddenly stops working while adding FLEX
9062 Ghost events in the PR are shown in color instead of grayed out
9099 Middle-click in the picker panel doesn't reset the selection but adds the item to it
9208 "NOT GUI THREAD" message when recording with countdown active
9274 Opening the last slot in a mixer track from a keyboard shortcut or controller doesn't always work
9218 Palette editor doesn't accept #000000 as a type-in value
9239 PDC for plugin mix level doesn't work properly for plugins after a plugin with latency plugin
9084 Playback state is not always set correctly when there's latency
9229 Plugin Picker doesn't show up properly on very wide aspect ratio screens (ex. 32:9)
9245 Potential for deadlock in automation delay
9045 Problems after recording to filenames that start with a whitespace
9116 Recording audio into the playlist inserts the recorded sample in the wrong position when looped
9238 "Show files when complete" option is shown in render window when consolidating tracks
9172 Some patterns on playlist are not repainted until you click on them
9046 Time markers are lost after pattern merging
7636 Triangle icon added when a channel is named the same as a pattern
9178 Unwanted smoothing when rendering a song with the main level fader adjusted
9222 Using multi-link with some VST3 plugins freezes the program
9092 Wrong detection of focused window for Mackie CU device
-
9095 FLEX: problems loading presets that have the same name as those in different packs
9260 FLEX: mod matrix uses processing power even when its parameters don't change
9151 FLEX : static noise on output in preset Saif Sameer - Dense
9176 Newtime and Newtone: "Drag selection" icon Right-click text bug

9252 Wrapper: MIR PRO generates loud audio output when 2 or more instances are loaded
9082 Wrapper: time information has an additional delay when behind a plugin with latency
9118 Wrapper: incorrect call sequence when resetting a VST3 plugin
9129 ZGE Visualizer: problems when using more than one instance of the plugin
9127 ZGE Visualizer: the "MIDI port" setting is not saved correctly if the value is 0
9144 ZGE Visualizer: Typo in "Youlean Peak Shape" parameter "tickness" (should be "thickness")
9141 ZGE Visualizer: NDI output should be given unique names
9174 ZGE Visualizer: video sync does not start with "Start)" marker
9168 ZGE Visualizer: uDMX compatibility issues
9167 ZGE Visualizer: crash if a video is exported without a compatible GPU
9268 ZGE Visualizer: error message when Youlean Blur is first layer
9262 ZGE Visualizer: Audio Plane effect only reacts to audio when song is playing
9253 ZGE Visualizer: using shift + left/right to move a layer doesn't scroll the selected layer into view
9246 ZGE Visualizer: Alps effect does not render at full height
9244 ZGE Visualizer: FruityDanceLine shadow does not use alpha value
9243 ZGE Visualizer: TextDraw prints white squares if first character is a space
9227 ZGE Visualizer: Video export quality degradation compared to FL Studio 20.6
-
9081 Scripting: continuousMove function does the same as continuousMove_pos
9088 Scripting: freeze when using MidiOutMsg
9089 Scripting: missing muteTrack function for the playlist
9123 Scripting: muteChannel and isChannelMuted functions works reversed
9104 Scripting: patterns.patternCount returns 999 when the project has no patterns
9114 Scripting: setChannelVolume uses a normalized value while getChannelVolume uses 0..1.28
9076 Scripting: setPlaybackSpeed with wrong values will crash
9090 Scripting: ui.GetFocused function always returns 0
9107 Scripting: ui.getVisible and ui.getFocused return wrong values for browser and PR
9139 Scripting: mixer.setRouteTo should return active state
9135 Scripting: transport.setSongPos sets position but do not relocate song
9130 Scripting: Call OnRefresh when value of linked control changed inside FL
9137 Scripting: Add transport.getSongPosTime function
9162 Scripting: Mute & Solo doesn't trigger OnRefresh
9185 Scripting: Allow on/off values for channels.showEditor/channels.focusEditor
9201 Scripting: Add optional parameter to add full channel count with channels.channelCount function
8982 Scripting: Split "Controller type" list into script and built-in parts
9200 Scripting: Add error message for missing linked device
9189 Scripting: midi sync indicator doesn't turn orange when event is handled
9184 Scripting: some channel module functions could crash FL with non-existing channel
9183 Scripting: channels.isGridBitAssigned is not needed as separate function
9181 Scripting: some functions in channel module work filtered and some with unfiltered channels
9180 Scripting: channels.showCSForm doesn't work
9171 Scripting: some setter functions doesn't refresh the their windows
9165 Scripting: call OnRefresh when linked value changed in the program doesn't work for generic links
9263 Scripting: channels.setStepParameterByIndex can crash FL with incorrect values
9240 Scripting: MCU doesn't display latest character send to display
9235 Scripting: missing general.undoDown function
9164 Scripting: HW_Dirty_FocusedWindow is not fired on plugin focus changes
9163 Scripting: Assigning of the target mixer tracks for channels in the channel rack is laggy
9157 Scripting: Add PEAK_L_INV and PEAK_R_INV modes for mixer.getTrackPeaks
9136 Scripting: Add transport.getSongLength function

(macOS)
9173 Advanced fill tool crashes when closing
9228 Program freezes if a messagebox appears and the application loses focus
9115 SendKeyInput crashes when F12 is used while and external plugin is open
9221 Split "Controller type" list into script and built-in parts doesn't work properly
9210 No crash dialog shown for exceptions in the UI thread
-
9093 Wrapper: VST3 plugins are not unloaded properly when removed

20.7 (30 April 2020)

Changes
9054 The Presets view of the color dialog now shows the old color picker layout
-
9043 ZGE Visualizer: added "square 1:1" to the aspect ratio selector
FL Studio Mobile updated to v3.2.85 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)

Bugfixes
(common)
9007 Crash when initializing Maschine MIDI device
9059 Incorrect position in plugins when playback is stopped
9036 "Line" snap quantizes automation while recording
8573 Missing samples dialog has hidden "reload project" button focused when opening a project
9031 Rendering WhatsNew.flp visually stalls, progress bar does not update (Anna Mia song)
9049 Scripting: can not remap MIDI IN channel (OnMidiMsg)
9053 Some templates included in the installer don't have the "Compensate automations" option set
9034 When importing a MIDI file, no FLEX channels are added if the "new project" option is unchecked
-
8862 DirectWave: crash writing the configuration to a file
9055 Fruity balance: cpu usage is too high when the editor window is open
9042 VFX Envelope: envelopes are triggered early
9044 ZGE Visualizer: special "space" unicode characters appear as squares in wizard presets

(macOS)
9033 Crash on overwriting file during export on Catalina
9067 Crash on audio thread if input device has different properties than output device

20.7 Release Candidate 3 (23 April 2020)

Changes
8983 The url defined in MIDI scripts is now used as the support link (if it's on the FL Studio forum)
-
8920 Control Surface: use new color dialog
8955 Diagnostic: show additional information while performing initial tests
9022 ZGE Visualizer: added "Simple" mode to effect list

Bugfixes
(common)
8976 Access violation scanning for plugins
8951 Automation clip preview in the picker panel doesn't always update when it should
8995 Burn MIDI for step sequencer swing results in oddly overlapping notes
8962 Crash while moving patterns up
8956 Crash when adding a plugin
8912 Disk recording is offset if you select part of the time line not starting at 0
8974 MIDI scripting: OnSysex event is never called
8971 Old color picker appears when extended mouse buttons are clicked in the name editor
8948 Punch out recording is one tick late
-
9015 Control Creator: range check error when FXAttack or FXRelease for a button are set to zero
8987 Diagnostic: access violation during initial scan
8953 FLEX: scrolling is erratic when you get to the bottom of the pack list
8970 Newtone: playback position snaps back to beginning when slices are dragged up and down
8961 VFX Envelope: no pause at the default value for Envelope and LFO amount knobs
8941 VFX Envelope: visual glitch when the color button value changes
8990 Vocodex: crash opening a menu in one instance when another was removed
8965 ZgeViz: sometimes saving a still image does not contain all details

8980 ZgeViz: ampersand character not visible with TextTrueType

(Windows)
8952 Wrapper: Oxford Limiter plugin's editor window is not the correct size when the display is scaled

20.7 Release Candidate 2 (16 April 2020)

Changes
8879 The drop location for samples with unknown length is shown with a fade out on the right side
8902 Select a color and close the color picker by double-clicking on a color
8919 The View > "Python output" menu has been renamed to "Script output"
8891 Added button to copy results from the test log

Bugfixes
(common)
8943 Crash related to restarting a MIDI device
8911 Disk recording doesn't work for tracks with a negative latency set
8880 Division by zero error after using Advanced Fill tool
8927 Plugins aren't notified about playback if they're opened while FL Studio is playing
8910 The mixer's "Compensate automations" option isn't saved in the project
8901 The color dialog appears partially off screen if it's opened close to the edge
8899 The text color for notes with the same note color but different velocity is sometimes different
8934 MIDI scripting: F11 and F12 keys are not supported in the GenericTransport function
8935 MIDI scripting: mixer.soloTrack doesn't work
-
8921 Control Surface: changing colors for the Keyboard control doesn't always work
8873 Convolver: the T shortcut doesn't trigger its impulse
8895 DirectWave: presets that use ogg-encoded samples take longer than expected to open
8928 Patcher: crash when opening NewTime or Newtone
8942 ZGE Visualizer: incorrect behaviour when effects are several levels deep in subfolders

(macOS)
6814 File creation date is changed when an existing file is saved
8917 Crash on exit when FL Studio VSTi is open
-
8649 DirectWave: Can't find DirectWaveCtEngine library when opening external sample formats

20.7 Release Candidate 1 (8 April 2020)

Changes
4018 Automation and time delay compensation (experimental)
8105 Added automatic looping to the Advanced Fill tool in the channel rack
4299 Note colors can now be customized
3496 New color picker
8509 Added warning when changing the user data folder location
8568 Changed default template to "Basic 808 with limiter"
8593, #8627 Added menu items and a keyboard shortcut to arm or disarm all selected mixer tracks
8499 Added option to import MIDI files using FLEX channels instead of MIDI Out
7418 Added a way to run all tests in sequence
8684 Improved startup time with certain MIDI devices attached
8659 Added in-app shop button to the toolbar
8746 Added "Percentage" column to plugin performance monitor
8706 Added Help menu entry for the in-app shop
8824 Show a warning when PPQ is set to a lower value
8878 Added Shift+C shortcut to color channels with a gradient and Ctrl+Shift+C for random colors
-
4016 Added VFX Envelope plugin

8167 Distructor: Added Mono and Wide modes for Delay 3 based chorus
8673 FLEX: added support for previous and next preset selection via MIDI controllers
8715 FLEX: improved startup time
8788 FLEX: direct users to knowledge base in case of download errors
8661 FL Studio ReWire is now deprecated and will be removed in a future version
5097 FL Studio ReWire will no longer auto-start when FL Studio run while a ReWire host is active
8441 Newtime: Added an option to select the beat detection method
8745 Wrapper: optimizations to processing
7642 ZGE Visualizer: new and improved video export wizard
8689 ZGE Visualizer: new effect "ParamMorphTarget"
8709 ZGE Visualizer: changed the default audio quality for video export to 256kbps
8717 ZGE Visualizer: new effect "Audio Plane" by StevenM
8810 ZGE Visualizer: dropping ".zla" files on the "Add layer" button will now add a new layer
8830 ZGE Visualizer: updated NDI to version 4.5
8883 ZGE Visualizer: 137 new shader effects
8882 ZGE Visualizer: improved .mov file compatibility with the QTRLE codec
8889 ZGE Visualizer: effects are displayed in a tree view by default
FL Studio Mobile updated to v3.2.78 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)

Bugfixes
(common)
8598 Access Violation with the Fire controller while changing mixer volume
8545 Advanced fill tool: Selecting a new channel doesn't change the channel in some circumstances
8793 Arpeggiator is always one tick late
8735 Automation clip is created with zero value if there's latency before the plugin
8585 Backups are deleted in wrong order
8569 Consolidate/export PL track exports tracks containing only automations
6881 Channel rack scrolls up when deleting a channel
8245 Crash during recording
8623 Crash loading a 2 hour long FLAC file
8257 Crash opening wavpack file
8590 Crash trying to import mp3 file
8564 Crash when deleting channel with graph editor opened under so6De circumstances
8307 Crash when dragging a sample over the playlist
8315 Crash when routing changes
8534 Crash with Akai MPG 25
8687 Crash changing routing when PDC is active
8658 Crash trying to unlock FL Studio from a file
8642 Crash drawing some images
8640 Crash when opening the piano roll
8425 Crash drawing a waveform in the channel settings window
8636 Crash when saving a mixer preset (unable to create a directory)
8590 Crash trying to import an MP3 file
8760 Crash at startup if FL Studio Fire edition is started without a device attached
8604 Crash when channel order changes
8753 Crash when IL Remote is enabled
8764 Crash when changing the pattern selector with a jog control
8837 Crash when resizing playlist tracks
8832 Crash in the playlist
8796 Crash in the channel rack
8787 Crash when notes are quantized
8781 Crash during audio recording
8817 Crash when dragging a sample to the channel rack from the browser
8677 Crash using "Burn MIDI to"
8494, 8495, 8571, 8696 Crashes when using piano roll tools (or after using them)
8652 Consolidate only mutes selected clips (or none if nothing is selected)
8843 Deleting a step in the graph editor doesn't work if there other PR notes in that same step
8663 Error "Not GUI thread" during mixer track rendering
8559 Export too many channels when split mixer tracks is used
8865 Export to a DirectWave instrument crashes when there is a lot of data to export
8763 Issues related to recording and delay compensation

8639 Markers are not copied to new channels when using "split by channel"
8771 Missing value in the hint bar for most parameters when editing events
8488 Piano roll data is removed after using the Advanced Fill tool, even when it's canceled
8670 Piano roll "Strum" tool gives different length at different PPQ values
8531 Potential crashes when telling plugins about time signature changes
8631 Program freezes when moving a mixer track that has a sidechain input
8196 Recording doesn't stop at the expected position when loop recording is off and there is latency
8699 Recording doesn't stop when playback stops
8833 Right-click on the sample file name doesn't show the sample history popup
8823 Right-click on a step doesn't delete all notes within that step
8554 Shift value in the Graph Editor gets changed for multiple channels when it shouldn't be
8560 Strange behavior after deleting a length marker in the piano roll
8737 The audio input delay line is not processed when the input has no reported latency
8710 The delay line for generator plugins doesn't work when no audio is generated
8537 Time signature changes aren't broadcast to plugins
8469 Timing issue and crackling sound with PDC and sidechaining
8650 Various crashes when creating new folders
-
8711 Diagnostic: most render tests produce a red result
8795 DirectWave: crash when using "pitch bend" control in multi-bank
8846 DirectWave: options have no effect
8849 DirectWave: dropping a sample no longer automaps it according to its name
8888 DirectWave: crash opening a FLAC file in 32 bit
8512 Distructor: deadlock when the effect slot's enabled button is automated
8605 Distructor: broken automation if a module earlier in the chain is deleted when loading a project
8656 Distructor: the plugin is silent in the Wiselabs demo song
8707 FPC: delay compensation error when the plugin is routed to master track
8595 FLEX: browser scrolls to wrong pack on click
8694 FLEX: crash when the playing state changes
8719 FLEX: stretching goes out of time sporadically
8722 FLEX: crash when loading preset that use stretching
8720 FLEX : crash when loading Vintage Revival SH-100
8757 FLEX: the pack grid size is not reset when the General MIDI pack is used
8657 Fruity Balance: the last meter value shows when the plugin is disabled
8729 Fruity Limiter: notification of latency changes happens later than it should
8617 Maximus: there are sometimes invalid values in the audio
8672 Newtime: the program freezes when scrubbing audio
8176 Newtime: audio is glitchy while scrubbing if there's a big stretch factor
8174 Newtime: moving slices breaks visual representation of the edited audio
8602 Newtime: long samples are not played correctly when started from the middle
8686 Newtime: moving the position marker in an empty instance will crash the plugin
8175 Newtime: dragging first slice to a direction can generate loud high pitched beeps and noises
8828 Newtime: the "Cut" button should be removed
8683 Newtime and Newtone: audio sent to the playlist should use "Resample" as the time stretch mode
8516 Newtime and NewTone: some samples don't load
8561 NewTime: crash when changing the detection mode
8521 Newtone: playback doesn't stop when mouse button and ALT key are released in wrong order
8504 NewTone: dragging some parameters in advanced mode causes the entire view to scroll
8543 Patcher: window doesn't open automatically when a VFX plugin is opened in the mixer
8857 Patcher: voice properties can't change after a voice was released
8655 Wrapper: sendTextMessage and receiveText don't work for VST3 plugins
8462, #8647 Wrapper: crashes enabling and disabling VST3 plugins
8301 Wrapper: fxp presets don't load properly anymore
8553 ZGE Visualizer: "Audio Src" can be assigned incorrectly after reloading a project
8634 ZGE Visualizer: "Point Cloud" point size parameter is not resolution independent
8762 ZGE Visualizer: video export wizard turns white sometimes
8718 ZGE Visualizer: color selector dialog sometimes appears behind the export wizard
8716 ZGE Visualizer: exported video does not play in web browsers and some media players
8768 ZGE Visualizer: "KaleidoRoad" preset has "ShowOrigin" enabled
8822 ZGE Visualizer: selecting the Vinyl preset and exporting leads to broken output

8855 ZGE Visualizer: "Could not create encoder" message when the filename ends with a space

(macOS)
8603 Dynamic wallpaper menu is not visible
8366 Hints are messed up in a specific project
8597 Mixer controls invisible when the mixer is wider than a certain size
8761 Zooming up and down is choppy
8621 Crash listing CoreAudio device properties
-
8550 GMS: crash processing tape delay
8724 ZGE Visualizer: "Point Cloud" effects do not work

(Windows)
8303 Crash writing settings to the registry
8276 Crash refreshing MIDI devices

20.6.2 (31 January 2020)

Changes
8509 Show warning when the user data folder is set to an invalid location
8501 ZGE Visualizer: added "BPM step" option to ImageMashup effect

Bugfixes
(common)
8466 Don't show admin warning when FL VSTi is started
8490 Crash updating PDC delay lines
8475 Crash opening projects with demo plugins
8463 "Drive not found" crash at startup
8252 Crash updating the screen of the Fire
8452 Freeze when dragging "Save score as..." menu item over the playlist button in the main toolbar
8449 Echo Delay / Fat Mode pitch control doesn't work with stretch when a time is set
8443 Adjusting properties of multiple notes in the piano roll doesn't work well for "X" and "Y"
8214 Steps can be added after pattern length
8461 Toolbar can become glitchy if a specific point is clicked with the mouse wheel button
-
8455 Blood Overdrive: high CPU usage in 32 bits
8454 Distructor: high CPU usage in 32 bits
8456 Dashboard: do not show unregistrable plugins in detected problems section
8434 Fruity wrapper: opening presets for VST3 plugins from .vstpreset files doesn't work
8500 Fruity Wrapper: crash with some plugins
8474 Fruity Wrapper: garbage characters in parameter names in Kontakt
8448 ZGE Visualizer: fixes and improvements to "Youlean Oscilloscope" and "Youlean Waveform"
8484 ZGE Visualizer: export failure when "Supersample" and "Uncompressed" options are both on

(macOS)
8493 Crash when the user data folder is set to a location that can't be written to

20.6.1 (14 January 2020)

Changes
Added "Time-warp sample" option to the audio clip popup menu
The main pitch can now be specified in Hz when using "Type value"
-
Diagnostic: some usability changes to the project fixer
FL Studio Mobile updated to v3.2.63 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)
ZGE Visualizer: additional keyboard shortcuts ('S' to solo selected layer etc)
ZGE Visualizer: added "BPM sync" option to ImageMashup effect

ZGE Visualizer: uDMX support
ZGE Visualizer: new effect "Youlean Oscilloscope"

Bugfixes
(common)
"Assign to new instrument track" deletes channel-icon
Channel rack can be resized so it's more narrow than it should be
Channel rack scrolls unnecessarily
Consolidate playlist selection from song start doesn't work correctly
Channel window closes when the plugin is replaced by drag and drop
Crash saving a file from Make Unique
Crash when MP3Genres.txt is missing
Crash when processing MIDI messages
Crash when changing the tempo map
Crash at startup while listing the available project templates
Crash using the Mackie MIDI controller type
Crash report: FLEngine_x64.dll Exception: List index out of bounds (6)
Crash when the step sequencer is clicked
Crash when latency changes (for example when a channel's mixer track assignment changes)
Crash when drawing separator lines in the toolbar
Crash when focusing the graph editor
Crash opening zipped loop package
Crash when focusing a window from the Fire controller
Crash getting information about a plugin
Crash when opening a WavPack file
Crash opening a project
Crash when showing information about a trial plugin
Delay compensation doesn't update after cloning a channel
External audio editor also launches when pitch correction or warping are selected
Missing default color in plugin slot's color selector
Playback starts when the advanced fill window is closed in song mode
Rendering a project never stops when there's a skip marker and no end marker in the playlist selection
Skip markers behaves oddly when there's a time selection in the playlist
-
Control Surface: control values are different after undo
Diagnostic: crash reports aren't uploaded properly
DirectWave: errors when importing soundfont and SFZ instruments
DirectWave: crash opening items when logged in as another user than the one who installed FL Studio
Distructor: 24dB high and low pass filter resonance level is affected by the Smooth parameter
Distructor: doesn't notify the host when things change that would require a file save
Edison: auto scroll button has an incorrect hint
FLEX : distortion in "Rectifier"
FLEX: arpeggiator velocities are too loud
FLEX : VCA Attack controlled via macro (in Mod Matrix) doesn't work
FLEX: envelope not releasing properly anymore
FLEX : single shot LFO - only positive halfwave is taken into account
Fruity Delay 3: loud noise when the plugin is opened
Fruity Slicer: access violation when listing the note names
Morphine: some menus don't show
NewTime: window steals MIDI keyboard focus for no reason
NewTime: wrong hint for Groove knob
NewTime: "Send to piano roll" menu option shouldn't be there
NewTime: crashes when using Ctrl+Z after the sample is deleted
NewTime: alt + drag a marker snaps back to the original position
NewTime: crash when sending to the playlist
NewTime: can't select a region without dragging when using Ctrl + click
NewTime: crash when moving regions around while playing
Plugin Manager: plugin list is sorted with case sensitivity
Vocodex: the plugin locks processing too long while close and opening its carrier synth
Voltage Controller: pitch tracking issues
Voltage Controller: clock inconsistency

Voltage controller: trigger pulse width is too short for some modules
Wave Traveller: exporting a project as a zip file fails
Wrapper: garbage at end of parameter names from Kontakt
Wrapper: plugin settings are not saved when a VST3 plugin is disabled
ZGE Visualizer: various video looping issues
ZGE Visualizer: crash in MeshText effect if the space character is used
ZGE Visualizer: "FeedMe" effect can sometimes fail

(macOS)
Mouse cursor doesn't update when using right click actions or when e.g. creating clips or notes
-
ZGE Visualizer: transparency problem with PNG images

20.6 (9 December 2019)

Changes
NEW Export rendered song to Soundcloud
NEW "Advanced fill" step sequencer tool
Access to articulator settings from the automation clip's menu
Added default color setting for Playlist, Piano roll, Event and any other editors
Manage "don't show this in the future" dialogs in settings window
Added "Reset on transport" checkbox to Plugin Performance Monitor
Added .midi file extension where .mid was already supported
Added an option to start with an empty project, a template or the project that was opened last
Added an option to burn notes from a channel to its piano roll, to allow recording of note output from a plugin or from the channel's arpeggiator and other functions
Added an option to export audio for all playlist tracks, from File > Export or the playlist's Tools menu
Added two new demo songs by Olbaid
Added option to render window to show the rendered file location
Added link to news page in news panel menu
Deleting an audio track now allows more control over what is deleted
Make unique as sample window has "Don't show this again" option
Remember detached state of the channel settings window when cloning a channel
Replaced the "Theme" selector from General settings with a "Silent startup" checkbox
The color picker popup now has an indication for the default color
-
NEW Distructor plugin
NEW Fruity Voltage Controller plugin
NEW Newtone plugin has been split into Newtone (stretching) and Newtime (time warping)
Convolver and Slicex: removed KB input buttons from window (functionality is in title bar instead)
Diagnostic: improved recovery of corrupted projects (filled with zeroes)
Diagnostic: added detection of projects with broken content when "fix project headers" is used
DirectWave: support for FLAC monolithic mode
Edison: added an option to change the sample filename in the properties window
FLEX: add indication of available updates for installed packs
FLEX: show hint instead of modal dialog when there is a problem downloading data
FLEX: show a message when a preset can't be opened
FLEX: when opening a project, any missing packs are shown in the missing data window in FL
FLEX: replaced modal error window when downloading data with an animated hint
FLEX: added a new parameter: Reverb Mod Speed
FLEX: Choose to see packs that include all or any of the selected tags
FL Studio Mobile updated to v3.2.61 (https://forum.image-line.com/viewtopic.php?f=1964&t=163040)
Granulizer: added sample display
MIDI Out: added options to enable or disable sending some data when playback starts and stops
Slicex: the envelope tabs now have "in use" indicators
VFX Key Mapper: animation of input and output keys
Vocodex: added option to use draft mode when rendering
Wave Traveller: added snap to grid option
Wrapper: added code to use a VST3 plugin if its VST2 version can't be found

Wrapper: added an option to enable or disable smart disable for a given plugin and any new instances
ZGE Visualizer: new effects "Youlean Retro Road", "Youlean Time Bar", "Youlean Time Stamp", "Raindrops"
ZGE Visualizer: Projection effect now has a "Transparent" checkbox
ZGE Visualizer: include NDI video streaming support
ZGE Visualizer: new effects "Youlean Image Rotation", "Youlean Waveform", "Youlean Drop Shadow"
ZGE Visualizer: FLAC audio output is now supported for mp4-files
ZGE Visualizer: uncompressed export now includes alpha channel
ZGE Visualizer: added option to save still image of the visuals
ZGE Visualizer: improved support for unicode characters
ZGE Visualizer: added option to display background pattern in preview mode
ZGE Visualizer: Improved preset loading speed
ZGE Visualizer: cables show dependencies between layers
ZGE Visualizer: the preview window now has an option to reduce the preview resolution

(macOS)
"Show splash screen" option is now disabled
-
Diagnostic: Added Mojave and Catalina to list of detected versions

(Windows)
Install to 64bit Program Files folder and associate project files to FL 64bit by default
Browser: added an option to the item menu to open Soundfont files in Soundfont Player (32 bit only)

Bugfixes
(common)
Access Violation after a lot of consecutive takes of playlist audio recording
AKAI FIRE doesn't input correct notes to FX plugins
Ampersand in project names are not shown on the hint panel
Can't apply precomputed effects to a sample when the project was opened from a .zip file
Changing time selection during recording should not be possible
Changing the sample rate to 44100 Hz doesn't show a warning message
Changing a plugin added via the track mode option in the playlist will mess up mixer tracks
Channel rack window doesn't remember its original size after it was maximized
Channel rack doesn't maximize when the "minimum height" view option is selected
Clips in the playlist have black text with a black shadow when the track height is set to minimum
"Connected" status label is not updated immediately in the cloud accounts window
Crashing in Fruity Edition when a wave file is dropped on the playlist and there is no internet connection
Crash when merging pattern clips
Crash when adding a generator plugin after removing the last channel from the "unsorted" group
Crash when a plugin can't be opened
Crash when dragging a plugin from the Plugin Picker
Crash when resetting a project that contains one or more layer channels
Delay compensation in the mixer doesn't work when more than one hardware output is used
Dropping a MIDI file on the picker panel creates an audio clip
Layer cross fade and volume don't apply to "MIDI output" plugins
Loop controls in the channel rack are not set correctly when they're disabled and the project is opened
Mixer: when reordering plugin slots, the mixer and mute controls on the editor affect the wrong slot
Mixer: changing the name or color of a mixer track also changes always affect specific mixer track as well as target mixer track in specific projects
No default color in the color picker for the toolbar pattern selector
Online unlock shows a success message when there only a license for older versions of the program
Output scope doesn't always refresh properly when the output is silent
Playlist track header doesn't update when last clip is deleted by using right click and drag
Plugin preset name caption is not always painted correctly
Plugin windows are closed and reopened when loading a preset
Previewing in the picker panel disables "select from Playlist / channel rack"
Program freezes when trying to open a zip file that doesn't have a project file
Project crashes at the end of arrangement / at the end of the render

"Render all PL tracks" appears in the piano roll menu
Sample length info in hint bar is not visible for samples with long file names
Selecting a mixer track can cause crackles in the audio signal
Sluggish user interface when under high load
Smart disable cuts off the tail of effect plugins after 4 seconds
Splitting a pattern by channel and then cloning all of them crashes the program
Start button on the render window is not focused by default
Starting playback in the middle of an audio clip after tempo automation is out of sync
Some small cpu usage improvements
Submenus don't open when Shift, Control or Alt are held
Test window doesn't ask to save the project when running a test
Text in the picker panel doesn't change color over a similar background color, in high visibility mode
Time markers are added at the playback cursor position when possible, rather than header position
The height of a resizable plugin's editor changes when switching between the editor and Misc tabs
The scroll bar for the picker panel is not always painted when the program starts
-
Autogun: discards plugin state when resaving projects with instances created before recent update
Control Surface: slider control's height changes after reopening project
Control Surface: when caption and name are the same, caption doesn't change when the name is
DirectWave: "create program from samples" doesn't work
DirectWave: the mod matrix doesn't modulate its own amounts.
Edison: missing hints for some buttons
Edison: drag image is not scaled
FLEX: update macros defaults after preset load
FLEX: saving a project with the "Favorites" browser item selected will not open with the correct sound
FLEX: pack downloads sometimes time out
FLEX: Reverb Mod Depth and Reverb Color parameters do not work
FLEX: crash when playing notes in Mono/Legato play mode
FLEX : delay in the signal when the reverb mod depth is 0
FLEX : using monophonic polyphony doesn't always work
FL Studio Mobile: mono mic input was recorded as stereo sample (on one side)
FL Studio Mobile: 'Delete empty tracks' for recording channel turns into an Audio channel.
Fruity Dance: crashes when opening some PNG files
Granulizer: crash when removing the channel sample
Love Philter: the envelope tab "in use" indicators don't show up immediately
Maxx' plugins don't do anything when an entry in a control's popup menu is clicked
Newtime and Newtone: the default save and load paths are now in the user data location
Newtone: there's no image attached to the mouse cursor when dragging a sample from the plugin
PanOMatic: missing hint on the Speed control
Patcher: changing label's font color changes background to non-transparent
Patcher: potential freeze when playing lots of notes from the editor window of a plugin
Patcher: there is no keyboard input button on the editor windows of plugins opened in Patcher
Scratcher: crash because controls are updated from the mixer thread
Scratcher: multi-touch doesn't work
Slicex: crash using "Assign trigger notes to all" option
Slicex: there is no divider between the two decks, only a black bar
Wave Candy: crash when the window is too small
Wave Traveler: start and end point hints show less accurate values than before
Wrapper: VST3 plugins are not removed correctly ("bundleExit" not called)
Wrapper: check for resizing of VST3 plugins happens too often
Wrapper: migration of VST2 plugins to VST3 doesn't always work
Wrapper: VST3 plugins do not show vendor name if there is more than one plugin in the same binary
Wrapper: bridged plugins don't respect the "Notify about parameter changes" option
ZGE Visualizer: Watercolor effect can crash on some Intel GPU drivers
ZGE Visualizer: default position of detached window covers plugin window
ZGE Visualizer: include image and video files in zipped loop packages
ZGE Visualizer: preview shows up black for some users
ZGE Visualizer: inconsistency between output of "Youlean Color Correction" on different GPUs
ZGE Visualizer: when opening a project, missing files can cause animation window to be transparent
ZGE Visualizer: control positions do not move along with the window

(macOS)
Access violation (crash) when opening render dialog
Black screen when moving the FL Studio window to a secondary screen
Crashes locating files
Crash when the piano roll is closed while a mouse button is held
Drag & drop thumbnails are missing
Exported MP3 file doesn't contain Author information
Piano roll window doesn't open when its toolbar button is clicked
Resetting the buffer length slider in the Audio settings window doesn't work for CoreAudio devices
The priority of audio processing threads is too low
-
DirectWave: NKI files can't be opened
Edison: denoiser pans the sample when envelope set to max
FLEX: downloaded packs can't be loaded on case sensitive file systems
FLEX : the plugin window is always detached
Maxx' plugins crash on the second monitor if monitors have different scaling
Wave Candy: crash because memory is overwritten in some cases
Wrapper: Massive X Plug-in window shrinks each time you load a preset
ZGE Visualizer: doesn't use full retina resolution for preview window

(Windows)
File association set from FL's settings window doesn't work in Windows 10

20.5.1 (31 July 2019)

Changes
(common)
Added new demo project: Musata - Real Bass (Original Mix)
Added new Saif Sameer Sytrus presets
When changing the user data location, it now offers to copy data from the old to the new location
-
FLEX: better error description if downloads fail
FLEX: click the pack name to focus the current preset in the right-list
FLEX: split "Online packs" section into "For Download" and "Store"
Plugin Manager: show a prompt when the user wants to close the window during a scan
Zge Visualizer: added button to reload images
Wrapper: added option to allow dropping files on VST and VST3 plugins

(macOS)
'Associate project files' checkbox in the settings window is removed
Menu shortcuts will now show "Opt" instead of "Alt" for keyboard shortcuts

Bugfixes
(common)
Audio clips aren't redrawn when changing pitch
Can't remove generic links when the port specified in the link is not active
Clicking on blank space with multiple audio tracks duplicates all selected clips
Changing the mute button of a PL track doesn't mark the project as "changed"
Crash when deleting all patterns and automations in picker panel
Crash when the left and right mouse buttons are clicked together on the toolbar render button
Delete file in the browser can cause audio glitches if the sample is being previewed
Drag and drop of a sample adds the wrong clip if there are multiple clip channels with that filename
Dump score log to pattern deletes notes in unrelated channels
First clip made with "make unique" in the playlist can't be deleted with the browser "delete" option
First looping of note in the piano roll triggers inconsistently
FLAC export causes incorrect output when the audio signal is over 0dB
"Manage plugins" doesn't show Plugin Manager when it's already running and minimized
Merge patterns in the PL and set advanced looping doesn't enable the loop lengths of the pattern
Notes added to the step sequencer do not always play the first time around in song mode

Opening the Piano roll by double clicking on a pattern causes looping to break temporarily
Output monitor panel on toolbar doesn't show any activity when it's shown after it was hidden
Override generic link ignores mapping formula
"Plugin can't be found" message even though the plugin can be found
Shift + up or down in the browser will focus the plugin window, which hinders browsing presets
Speech synth textbox shows incorrect hint
The settings window is too high on some some screen resolutions
Turning Advanced looping on and off and reloading a project hides notes in channel rack
User data location is read from wrong registry location
Wrong tempo in exported MIDI file
-
Autogun: FL doesn't ask to save a project when changing the preset in the plugin
DirectWave: crash when loading a .dwp program re-saved from an .sfz file
DirectWave: Save As Program window should open when saving after 3rd party formats are imported
DirectWave: no edit field should be focused when the plugin is first opened
DirectWave: "Tune loop" doesn't change the sample's loop region controls.
Control Surface: default value can't be set for digits control
FLEX: "Pack couldn't be opened" message after downloading a preset pack
FLEX: "custom" option in delay section's "type" combobox should be removed
FLEX: access violation when drawing peak meter
FLEX: per-note parameters now all work
FLEX: Master Pitch in FL would not be taken into account after loading a new Preset
FLEX: improvements to memory usage
FLEX: crash on Olbaid presets
FLEX: wavetable samples not reading properly
FLEX: faster loading of presets
FLEX: modulation problem with Ping Pong delay
FLEX: Ping Pong readout position bug which could lead to presets freezing/crashing
FLEX: plugin can crash if an instance is closed while downloading
FLEX: crash when the last plugin instance is deleted before pack download finished
Fruity Love Philter: the about image is not scaled on hi-dpi displays
Fruity Love Philter: no hints for top right buttons
Fruity Scratcher & Wave Traveller: drag and drop to doesn't work when loaded in Patcher
Fruity Scratcher: fixed automation in old projects - breaks automation saved since FL 20.5!
Plugin Manager: can't set plugin category to an empty string
Plugin Manager: allow favoriting plugins with the space bar
Plugin Manager: favoriting plugins in behaves strangely
Transistor Bass: plugin can be resized when it shouldn't be

(macOS)
Crash when exporting to mp3 (midi input related)
Crash in popup menu
F10 doesn't close the settings window when it's already open
Nexus plugin crashes when trying to use "Synsopos" app
"Something went wrong" message when opening a plugin in a song or preset even when it's installed

20.5 (28 June 2019)

Changes
Added Olbaid presets for Sytrus and Harmless

Bugfixes
(common)
Crash when audio recording is stopped and auto save was triggered while recording
Freeze or crash closing FL Studio while plugin windows are open
Plugin performance monitor can sometimes show negative "peak" value
Potential freeze when inserting, moving or deleting a pattern during loop recording of audio
"Send master sync" doesn't work after a refresh when new MIDI devices were attached
Some "Advanced" templates don't release voices properly (templates updated)

-
Delay 3: crash / freeze / noise with certain settings
DirectWave: crash when loading stock convolution impulses
FLEX: "missing preset" panel's download button can incorrectly triggers multiple downloads
FLEX: graphical glitch in packs list when scrollbar is enabled
FPC: opening a preset doesn't open the corresponding MIDI loop
Plugin Manager: potential crash opening plugin list right when the program starts
Transistor Bass: crash when loading a project that uses the plugin
Wrapper: resizable VST3 editor windows are not sized properly after opening the wrapper settings tab
Wrapper: freeze when opening some plugins
Wrapper: MIDI events sent by VST3 plugins are not processed
Wrapper: plugins with unicode characters in the name aren't found when a project or preset is opened
Zge Visualizer: export crash using certain combination of effects

(macOS)
Shift + drag into Slicex doesn't work
-
Diagnostic: reset settings doesn't work
Wave Traveller: deleting nodes doesn't work

20.5 RC1 (18 June 2019)

Changes
New plugin: FLEX
Update MIDI device list when the computer wakes up after sleeping
Added "Don't show this in the future" checkbox to the deletion dialog for channels and effects
Added "Don't show this in the future" for error message when a midi device can't open
Added plugin performance monitor window
New option to change the maximum number of backup files
New troubleshooting option to set FL Studio path in registry to the location of the current instance
Underrun counter is no longer increased while a project opens
Don't allow a user data folder that FL can't write to
Open DirectWave when a soundfont file is dropped on the channel rack
"Transparent windows" option now has only two values (on and off)
New shortcuts for "mute selection" (Shift + M) and "unmute selection" (Alt + Shift + M) in PL and PR
Show a warning when the program is started as an administrator user
Added button to reset all "don't show this in the future" checkboxes to the General settings window
Improved error messages and unlock status when unlocking from the about window
Preview browser sample for full length with ALT + click
Visibility of left and right docks in the mixer is now stored in the project file
Step mode is now disabled by default in the denoiser tool (in Edison)
Default template selection is now done in the General settings window
-
Control Surface: popup menu for multiple selected items applies changes to all
Control Surface: support presets for label, digi wheel and XY controls
Control Surface: choose control style when adding a new control
EQUO and Fruity Vocoder: background image painting is now cached
FL Studio Mobile: updated to new version
Fruity Blood Overdrive is now a native FL plugin and available in macOS
Fruity Scratcher: added option to increase the size of the window 2x in each dimension
Patcher: new option to show cpu usage of modules
Plugin Manager: check mark for favorite plugins is now a star
WaveShaper: truncation of a signal is now linked to the render option "HQ for all plugins"
WaveShaper: new "smooth" option
Wave Traveller and Fruity Scratcher are now vectorized and available in macOS
ZGE Visualizer: added "Select all" buttons to images and meshes list
ZGE Visualizer: support export to Instagram resolutions and aspect ratios
ZGE Visualizer: added color parameter to WetInkSpiral effect
ZGE Visualizer: new effects (Alien Thorns, Alps, Boaty Goes Caving, Fluidity, Frozen Wasteland,

Neptune Racing, Space Jewels, Spherical Polyhedra, Xyptonjtroz), Youlean Mask, Youlean From Buffer, Youlean Background MDL, Youlean Audio Shake
ZGE Visualizer: support nearest filtering mode for imported pictures
ZGE Visualizer: use presets as image source
ZGE Visualizer: stream video from URL
ZGE Visualizer: choose videos or images from Pexels.com

(macOS)
Added VSTi and AU plugin versions of FL Studio
Implemented denoiser for Edison
New drag and drop implementation
Support for .RX2 files

Bugfixes
(common)
16 bit FLAC export renders corrupt file
Alt + right click to preview clip doesn't work when PR is open
Audio recording broken with loop rec off and a PL time selection
Auto-rename is done for instrument tracks when relevant options are off
Automation clips play during countdown timer while recording
Avoid unnecessary repainting of the PL when audio clips have automated pitch
Browser font size resets to small randomly, snapshots reset to full browser
Can't open some wav files
Can't select multiple patterns linked to instrument tracks
Channel settings dialog displays unparsed env variables in file path
Crash opening popup menus in some circumstances
Crash pressing return / enter key in More plugin window when no plugin is selected
Crash opening projects with invalid pattern number data
Crash on startup when the user data location is invalid
Can't unlock the program from the about window when the account email address contains a +
Channel Rack does not remember its width
Channel clone option creates different sound than clone + manual copy of notes
Clone channel with multiple selection doesn't work in filter group
Closing toolbar editor can crash
Coloring linked tracks doesn't work when more than one channel targets the same mixer track
Consolidation freezes or pauses at the start when using Fruity Video Player
Corrupted project files because of tempo maps
Dragging sample to browser doesn't locate its folder but adds a new one
Dropping a sample on the channel rack creates a copy of the file
Dropping a clip from the picker panel on a PL track header doesn't create an audio track
Dropping a plugin preset in the mixer always adds new plugin to currently selected mixer track
Dropping a sample from Edison ends up loading an incorrect file when the project was saved zipped
First plugin preset shows up twice in instrument track mode menu
Graph editor is not hidden when CR is detached
Import of time signature from MIDI file is incorrect in some cases
In-app shop shows products that aren't for sale anymore
Inconsistency with naming of plugin instances from different sources
Incorrect channel index leads to crashes when loading some flp files
"Invalid pointer operation" after opening the "more" window
Issues with track routing when assigning instrument tracks from the channel rack
It's possible to delete the only channel in the channel rack when deleting an instrument track
Lock to content for PL tracks doesn't work properly for instrument tracks
Memory leaks
Merging pattern clips affects unrelated patterns
Missing samples dialog doesn't have correct file extension in filter list when locating the samples
Missing samples dialog displays unparsed env variables as hint
Missing shortcuts for "dropped samples" popup window
Mixer mute / volume button & wheel on plugin window break in certain situations
Mixer crash when using some mixer track presets
Mixer track names show up italic when scaled and mixer is set to one of the compact modes

Patterns playing from random position when switching
Pattern names in pattern menus can't be clicked when they start with a "-" character
Potential crash using zip files when the shared program files location is not the default one
PPQ affects the default note length
Preset filename is not used for empty effect slot when auto-name is off
Project info box is shown over "should be unlocked" message box at startup
Recorded events in the PL are offset incorrectly
Rendered audio clip sounds quieter than live version
Right shift + click on the left side of a clip in the PL moves the whole selection to the left
Rotate right and rotate left functions in the channel rack don't account for pattern length
Selected channel is incorrect after cloning
Selection in PL gets stuck in resizing mode once edge is clicked
Sustained note recording into overlapping patterns causes extreme note lengths
Using "reset mixer track" doesn't update the Changed flag
Waves plugin crashes when project is opened
-
Autogun: preset numbers don't show up correctly after loading project
Dashboard: unzip function extracts to FL folder instead of user data folder
DirectWave: editor doesn't update when preset is dropped on channel settings tab of the plugin window
DirectWave: parameters aren't recorded correctly in event automation
DirectWave: improved warning message shown when opening a soundfont
Control Surface: project saved on macOS can't be opened in Windows
Control Surface: access violation when closing project
Control Surface: label and bevel controls have parameters when they shouldn't
Edison: freeze detecting pitch regions
EQUO, FPC: opening a preset that was saved at minimal size will have glitches
EQUO: graphical glitch
FPC: MIDI loops are not read from both user and factory data locations
Fruity Filter: extreme DC offset on low frequencies
Fruity Notebook and Notebook 2: FL doesn't ask to save song after changing text and closing FL
Fruity Phaser: error message when turning the knob on Patcher preset "1K Phaser"
Fruity Send: pan and volume knobs don't have a hint
Harmless: no hints when hovering over switches
Harmless: visual glitch at 125% scaling
Harmor: images over a certain size and using the formant mix knob cause a crash
Love Philter: access violation
Love Philter: CPU usage spikes when playback stops
Maximus, Fruity Limiter: set the ATT / LMH Del control value on mouse release only
Maximus: control hints not available or show wrong values
Newtone: access violation when opening a sample
Patcher: freeze when switching presets in some cases
Plugin Manager: potential crash because of update message when starting
Plugin Manager: loading existing presets takes too long
Slicex: auto-dump option is active even though its checkbox is turned off
Transistor Bass: controls for sequencer tab listed in last tweaked menu
Transistor Bass: FL crashes when the plugin is closed
VFX Level Scaler, Keyboard Splitter: problems with hints
VFX Key Mapper: no hint on Offset control and problems with other hints
Wave Candy: crash when minimising or showing the window
Wrapper: "bridged" state for plugin is not remembered
Wrapper: incorrect latency for Meldaproduction plugins after opening an flp file
ZGE Visualizer: with export hanging when many input videos are used

(macOS)
Caps lock acts like shift is held, and sometimes doesn't turn off
Caps lock causes Shift + Left-Click to function as slice tool
Crash with samples with very long filenames and paths
Crash when deleting a channel
Drag and drop to Channel Rack not working for files located on Boot Camp partition
Drag and drop to 3rd party plugins doesn't work from native effects plugins

IL Remote: commands are processed incorrectly by FL
Pinch and zoom from the trackpad is too slow
Runtime error 216 during installation and launching OsxFL
Two finger pinch gesture causes window resizing
Very long mp3 files fail to import
Wave files in Microsoft ADPCM format are not supported
-
Control Surface: adding controls via drag doesn't work
Maxx's plugins: right-click context menus are not available
Minisynth: all audio is muted
Plugin Manager: freeze while scanning
Wrapper: settings not persisted
Wrapper: Komplete Kontrol AU version hangs FL Studio when exiting
Wrapper: UAD AudioUnit plugins report incorrect latency when processing buffer size changes
Wrapper: CPU usage rises when opening plugin window toolbar for some JUCE plugins
ZGE Visualizer: preview window appears white after wizard is closed

(Windows)
Wrapper: bridged plugin window doesn't show at the correct size when FL is scaled by Windows
Wrapper: external window for bridged plugins has tiny caption bar when FL scales itself

20.1.2 (22 February 2019)

Bugfixes
(common)
Audio from plugin side outputs is sent to other tracks when the slot is muted and there is latency
Channel routed to master track isn't set to empty track when assigning it to an instrument track
Crash to desktop when using IMP Instant sample and reducing length parameter
Crash when right-clicking the channel selector
Ok Button not focused in missing plugins dialog

(macOS)
Some Audio Unit plugins crash when replaced or deleted
Morphine, PoiZone, Sawer: graphical glitches in some cases

20.1.2 Release candidate 2 and 3 (15 February 2019)

Changes
(common)
Adding an instrument or audio track doesn't switch from pattern to song mode anymore
"Separate from instrument track" is renamed and can also link a channel to a new instrument track
Removed (delete) presets from the default plugin databases as there are dedicated options for that
Deletion of plugins now asks for confirmation (as there's no undo)

(macOS)
GUI performance improvements
Input monitoring is disabled when the audio device is disconnected

Bugfixes
(common)
Adding instrument tracks doesn't use a unique name
Automation and audio clips can not be selected in the picker panel when they are zipped in the CR
Automation clips have shortened names when it's not necessary
Can't render a mixer track when the name is very long
Crash opening NewStuff project in FL 64bit
Current project tab in the browser is empty
Instrument track overwrites existing pattern after deleting another instrument track

Main toolbar's volume knob is automatable
Mini PR view in channel rack is not updated when changing some options
Pattern selector sometimes shows the wrong pattern after deleting one
PR: chop tool doesn't work correctly for 1/6 step
Predicted size for audio export is incorrect when mono export is selected
Recording event automation after a pattern can cause incorrect tempo automation
Resetting a mixer track will reset the manual delay compensation values for all tracks
Selecting an audio clip doesn't select the audio tab in the picker panel
Time calculation for clip start is inverted when the time knob is at zero
-
Control Surface: high cpu usage doing nothing
DirectWave: dropping samples on the zone grid doesn't always replace existing zones
Edison, Slicex and other plugins: wave / envelope editor buttons don't show a hint
Fruity Peak Controller: initial values of mute and ramp options can be incorrect
Fruity Soft Clipper, Transient Processor: GUI optimizations
Plucked!: Widen parameter doesn't work correctly in 64bit

(macOS)
Channel rack is not visible
Confirmation dialogs sometimes appear in the wrong location when using multiple screens

20.1.2 Release candidate 1 (31 January 2019)

Changes
(common)
New "missing plugins and samples" window when opening a project file
"Group with above track" will auto-color the track when the parent is an instrument or audio track
New option in the channel rack to unlink a channel from its instrument track
Initialized controls are now shown in their own folder in the "Current project" section of the browser
Added Ogun presets that were previously only available through Download Manager
Added "Olbaid" presets for Harmor
New Patcher presets by Wiselabs
-
Wave Candy: automatic mode change when the window size changes is now disabled by default
Wrapper: "Notify about rendering mode" option was removed, it is now always on

(macOS)
Performance enhancements

Bugfixes
(common)
Access violation opening the demo song "Tomas Chavez - Raubana - LIFE"
Audio recording to audio tracks can sometimes insert audio on another track
"Burn to pattern" doesn't burn all notes in some cases
Channel looping causes constant repainting of the playlist and piano roll
CPU panel is repainted when hidden
Crash on exit
Crash importing MIDI files with unexpected time signatures
Error opening "RadioactiveSandwich" demo song
Invalid channel index error when selecting a pattern clip in the picker panel
Note recording preview is broken in some cases
PL: clicking on a clip in a multiple selection doesn't select the corresponding item in the picker panel
PL: creating an instrument track in an empty project doesn't use pattern 1
PL: instrument tracks can be created even when there are no free mixer tracks
PL: make unique dialog is shown incorrectly when placing clips on tracks
PL: make unique dialog is not shown when cloning a clip in the same location with the shift key
PL: dropping an unrecognized file type on a track header adds an instrument track with an empty channel
PL: clips are constantly repainted when hovering the mouse cursor over them

PL: pattern 1 is selected after moving a clip on an instrument track
PL: nothing happens when a sample is dropped on an instrument track and "audio clip" is chosen
Plugin delay compensation breaks when channels are cloned
Punch-out marker doesn't work if there is no preceding punch-in marker
Right-click on an audio clip in the picker panel will focus the channel rack (when it's detached)
Too many tracks added when loop recording audio
Version update notification doesn't always show when it should
-
Control Surface: digits control doesn't send value changes out to Patcher and FL Studio
DirectWave: user interface breaks up in full screen when the browser panel is hidden
DirectWave: noisy loops in some instrument presets
Edison, Slicex, Convolver: freeze when using pitch detection and "dump to piano roll"
MIDI Out: freeze when selecting some presets
Newtone: density parameter is not remembered correctly
Patcher: audio output of new generator plugins is not automatically connected to the Patcher output

(macOS)
Access violation when a MIDI device is reconnected
Can't select save location for files
Magic mouse scrolling conflicts with mouse clicks
Wrong icon for audio and instrument track in the channel rack
-
DirectWave: access violation when used in Patcher
DirectWave: access violation when importing more than one file through Finder
Video Player: mute button glyph is a question mark

20.1.1 (18 December 2018)

Bugfixes
(common)
"4 bars" setting time knob popup menu in the channel settings window doesn't work
Access violation when a DirectWave preset is dropped on a PL track header
Access violation when the program is closed
Can't freely change the assigned mixer track for a channel after it's been unlinked from a PL track
Default value for the mix level knob in the effect plugin window is wrong
High cpu usage when scrolling in the PL in the OneDay demo song
Linked channel is not selected when a new instrument track is created
Loop length for PR channels is reset to zero when looping is disabled
Loop length selector is enabled for PR channels when it shouldn't be
"Make unique as sample" creates a clip with an incorrect sample start
Make unique popup window shows up when it shouldn't while moving clips around
Mini PR view in the CR doesn't update when the pattern length changes
Preview of recorded MIDI notes is incorrect
Project is not marked as "changed" after resetting empty PL tracks
Relocating an audio clip with shift + up/down to an audio track doesn't update the target mixer track
Resetting a mixer track doesn't always work
Shift + click in the picker panel doesn't select all associated channels in the CR
Some generic links for mixer controls can't be removed
Target mixer track control in the channel settings window is not updated correctly
When a marker in the PR is changed to a pattern length marker, its position changes
-
Control Surface: keyboard control shouldn't have any parameters
Harmor: "Browse envelopes / images" creates an empty path in the browser
SimSynth Live: all oscillators are off in a default preset (oscillator 1 is now on by default)

(macOS)
Access violation during the Diagnostic rendering test
Tempo information from wavpack files is not read
-

Beepmap: crash when using "Voice" preset

20.1 (7 December 2018)

Bugfixes
(common)
"Make unique as sample" doesn't keep the channel's color & icon
Using shift+click to resize notes in the PR prevent moving any further notes
Creating an instr track with "use existing channel" doesn't focus the mixer
Using the extra large mixer, right clicking on empty fx slots brings 'replace' menu
Using the extra large mixer, clicking the fx slots that appear on the Inserts do not pull focus to the mixer
MIX LEVEL for FX reset value should be 100%
Make unique always use the full sample
Problem with PostFX rec on audio tracks
Drop location issue when replacing a clip
Edison crashes when the insert key is held for a while
Big hint bar window should remember its location

20.1 beta 5 (4 December 2018)

Changes
(common)
Channel rack can now be closed by pressing escape
Shift + click on an item in the picker panel will open the rename dialog for it
ZGameEditor wizard presets added

Bugfixes
(common)
AV error sometimes happening when loading projects with channel looping
Freeze when scaling notes on looped channels
no Autosave when adding plugins via F8
Clicking on clip in multi selection doesn't select the corresponding item in the picker.
AV when switching SS loop button during audio loop rec
Update MIDI settings 'Hold and sostenuto' text
Export Mp3 and Wav at same time will produce noise in mp3-file when 24-bit is selected
Issue when cloning audio clips channels from audio tracks
The Mixer PDC label is 2 pixels too low
Tempo map slows down automation clips tweaking
DW will not load when default user path is not set
Instrument track from existing channel is routed to master track
Add Horizontal scrolling when dragging clips above playlist
Change color of loop button's caption when it's pressed

(macOS)
Override generic links' and 'Link to controller' dialogs no window name
DW Library Tab grid is empty

20.1 beta 4 (26 November 2018)

Changes
(common)
'Delete empty playlist tracks' new menu item
Pre-FX recording
ZGE Visualizer: right/shift click on a layer to solo it.

Bugfixes
(common)
Bug with instrument tracks after adding new samples to the CR
Mixer track not linked/renamed/colored when using existing channels as instrument tracks
Automation clips names are too long when using instr/audio tracks
Audio clips from audio tracks moving mixer tracks is an unbearable workflow
Issue with audio track when cloning audio clips
The loop button on the Piano Roll window doesn't enable looping
Crash sometimes with looping when modifying loop length during playback
Move FX track selector too fast for instrument or audio tracks and it results in a visual mismatch
location of Lock icon changes when Layouts of mixer is changed.
EQUO graph part not scaled after reopening
Drag/drop plugin to Patcher doesn't use mouse position (Mac)
First PL track can be grouped by dragging its resize handle up all the way
DW: "Replace sample" on multiple zones resets the key and velocity ranges so they are the same
DW: "Replace sample" changes the velocity and key ranges of a zone
DW: K-Trk value is reset when a zone's sample is replaced
DW zone editor handles are too big at 200% scaling
Error when dropping samples on Slicex ("can not focus...")
Problem with starting FL Studio after using "Offset %" slider in audio settings

(macOS)
Fixed various potential sources for AV-errors
External numpad can't be used to select patterns
Glitch 2 Crashes FL Studio instantly
Surface do not remember size
Fruity Love Philter Editor targets and Articulator parts not labeled in Hint Panel (macOS)

20.1 beta 3 (15 November 2018)

Changes
(common)
Added option for mono sample export
Automation of a channel's assigned mixer track is not possible when linked to audio and instrument tracks
Show indication of "armed" status of the linked mixer track on an audio track header in the PL
Changed icon for FPS counter
Shortened mute lock icons
Added more information about the current project
-
Control Surface: added MIDI keyboard control
Patcher: changed generic plugin icon
ZGE Visualizer: added "Edit preset" button to Wizard

(macOS)
CoreAudio buffer length setting is now fixed to steps of 8 samples (to help reduce errors with plugins)

Bugfixes
(common)
Audio clip channels linked to an audio track don't show the audio track icon
Automating volume on an audio clip linked to an audio track creates a new PL track for no reason
Changing controls in arpeggiator and quantize tool windows will reset chosen pattern
Channel mixer track assignment is reset when double-clicking on a clip
Channel rack has incorrect height on startup with advanced loop controls if auto resize is off
Crash while loading a project with active looped channels
Creating an audio track from a dropped existing audio clip doesn't paint the new clip properly
Deleting a pattern from an instrument track doesn't work well
"Display preset name in selector" always appears as deselected when no plugin is on effects track

Dragging an audio clip to another audio track doesn't use a "unique" copy
Dropping an effect preset on a playlist header doesn't add the effect to the correct mixer track
Freeze when the PR re-opens after the "Split by channel" feature is used
Freeze when moving audio clips on audio tracks in some cases
Graph editor doesn't update the event panel in the PR when editing parameters
Hang while moving an audio track
Issue with instrument and audio tracks when inserting PL tracks in some cases
Long delay when FL is closed and a large project is open
Mixer track names that start with - are shown as separators in the audio track selection menu
No message asking what to do when dropping an existing audio clip on a PL track header
Paste channels to new pattern freezes
Potential memory leak using consolidation when reaching the maximum available PL tracks
Potential slowdown of user interface because of instrument and audio tracks
PR doesn't remember its position/size
Problems playing channels when looping is on and a custom loop length is set
Recorded audio on an audio track doesn't assign itself to the linked mixer track
Resizing selected clip from left side doubles the snap
Right-click on an audio clip in the picker panel opens the channel rack if it was hidden
Scrollbar knob is not hidden when the Touch keyboard is very wide
"Set swingmix for selected" should have a space between swing and mix
Slowdown when scrolling in the PL
The mute button in the channel settings window is automated as an "Unknown event"
Thread error when exporting a score sheet from the PR
Track header caption is not updated when (some) clips are added and removed
Various issues rerouting channels and mixer tracks for instrument and audio tracks
Various issues with playback of looping pattern clips
When simple looping is enabled, newly added channels don't have a loop length set
-
Control Surface: XY control doesn't update linked controls
DirectWave: access violation
FL Keys: crash clicking on the ? button when it is loaded from the "Installed" section of the plugin database
Formula Controller: different results in 32 bit for some functions
Parametric EQ: potential crash
Slicex: no keyboard input after loading a sample

(macOS)
Can't save to filename containing a "/" character
Drag sample from Edison to Newtone creates many copies of samples
Project time info displayed behind controls at some scaling settings
"Speech" entry shouldn't be in the favorite channels list
When opening a channel with detached editor, the editor doesn't get focus so can't be closed with Esc
-
DirectWave: access violation
DirectWave: the browser shows the full path instead of [LIB] for the home folder
Patcher: keys get stuck
Newtone: edit area is scaled incorrectly at some scaling settings
Sakura: hang on preset "A Monk In the Tropics"

20.1 beta 2 (31 October 2018)

Changes
FPS counter is now on the CPU panel, can be shown instead of the voice count
New output folder option for command line rendering: /O
The channel rack's maximum width has been increased
-
Patcher: new option to close all plugin windows when the Patcher editor window is closed
Patcher: audio inputs are now also shown for generator plugins that have them
Plugin Manager: no more [64bit] suffix for plugins that have no 32 bit version

Bugfixes
Access violation deleting a channel that was added as an instrument track
Audio track's icon in the playlist is not updated to reflect the armed status of its mixer track
Automation clips are not grouped with their audio track
Burn to pattern doesn't respect pattern length
Channel looping mode doesn't have any effect
Clips remain selected when a new audio track is added
Crash dragging items in the picker panel
Crash tweaking looping controls with notes in the piano roll
Crash when clicking on the graph editor
Fire edition upgrade options are not correct
Looping is not enabled when advanced controls are tweaked
Notes no longer work if started after the start point
Playback of looped clips in the playlist continues past the end of the clip
Pattern clip has one extra pixel on the right edge, in the playlist
Picker panel doesn't switch to the audio clip tab when audio is dropped on a playlist track header
Picker panel instead of the playlist scrolls when something is dragged to the bottom of the playlist
"PRForm already exists" error in some situations
Random freeze during playback
Swing knob has incorrect default value
Temporary freeze when an upgrade message is hidden with "Don't show this in the future"
Unlock controls on the about panel are in the wrong location
Using mono with non-looped samples results in samples not played after the first note
-
Wrapper: VST3 plugin editor windows are larger than they should be
ZGE Visualizer: Ragdoll crashes when reopened

20.1 beta 1 (24 October 2018)

Changes
(common)
Steps and notes on channels can be looped to accommodate the pattern length
Added instrument and audio track modes in the playlist
Control Surface now has a "Digits" control
All playlist tracks are set to 100% height in new songs
Time knob in channel settings window is now automatable for sampler channels
Collapsed panels in various dialog windows are now open by default
Added "Tree display" option in mixer track's File menu
Better contrast on channel buttons and playlist clips in high visibility mode
"Delete" item in playlist track menu has "e" as its shortcut
Piano roll is kept open when cloning a pattern
Added option to enable or disable automatic update checks
Added option to show GUI update speed in frames per second to the cpu meter popup menu
The Channel Rack window now has a close button
-
ZGE Visualizer: import support for animated GIF files
ZGE Visualizer: 3 new shader effects from Flockaroo

(macOS)
UI options can be set from Diagnostic
Diagnostic and Plugin Manager have a macOS menu

Bugfixes
(common)
Crash when double clicking empty patterns in the playlist
Effect slots have the preset name instead of the plugin name when "Auto name effects" is off
Envelopes don't use the user data folder
Main volume slider is applied to consolidated audio when "Enable master effects" is on

Problem with mute lock/solo state when consolidation is undone
Problem dragging piano roll notes with shift + hold
Recorded MIDI events don't show up in playlist clips
Some controls wrap incorrectly when using infinite rotary controllers
Unlock from the about window doesn't use an https connection
-
DirectWave: crash when opening the 9loops demo project
Edison: black box after adding a sample

(macOS)
Access violation when creating a thumbnail for the NI Replika VST plugin
Application signing broken when changing graphics settings
Can't drag "Save preset as" menu item for plugins inside Patcher
Changing pitch in channel settings sometimes shows another control's hint
File aliases shown in browser don't play previews
Multi-monitor issues

20.0.5 (3 October 2018)

Bugfixes
(common)
Access violation when dragging to the Playlist and the Picker Panel is hidden
Access violation closing a plugin or channel window
"Agree to terms" controls in the about window are not anchored to bottom
Fire: cannot change patterns in drum mode
Fire: unexpected behavior when using 4 units in performance mode
Fire: the screen doesn't turn off in song mode
Fire: changing the graph editor parameters of the right unit in multi-device mode doesn't show edits
Fire: the jog doesn't select channels in drum mode
"New version available" message is shown on every start of FL
The toolbar editor is not visible when the toolbars are undocked and at the bottom of the screen

(macOS)
Crash when receiving a lot of SysEx data

20.0.5 build 674 / 84 (25 September 2018)

Changes
Support for Akai FL Studio FIRE controller
Fruity Convolver is now included in Fruity edition
Updated FL Studio Mobile

Bugfixes
(common)
Behringer CMD LC1 custom pages do not work in some cases
Cut/copy/paste disappear from main menu when the channel rack is detached
Can't select dynamic wallpaper after selecting an HTML wallpaper
Channel rack minimizes when dragged down to a screen below the current one
Channel rack: incorrect name used when plugin is renamed to its original name
Graph editor shows up on wrong screen
GUI glitch when changing presets on effect plugins
Mixer: preset filename is not used when auto-name is off and preset is dropped on empty slot
Mixer: focus moves to seemingly random plugin when trying to open a visible plugin from its slot
New version notification is never shown
Picker panel: patterns aren't refreshed when they become empty
Picker panel: selecting many patterns is slow
PL: drop audio on picker panel creates a linked track

PL: grouped tracks still show as grouped when the parent track is deleted
PL: consolidated audio appears in the wrong place when the consolidated track has subtracks
PL: zoom issues when switching arrangements
PL: dropping an audio clip causes a crash when the "Audio" filter in the channel rack doesn't exist
Saving changes to the current project does not execute the intended action after saving
-
Control Surface: crash showing control popups when one of multiple instances was removed
FL VSTi: crash in Live beta of 10.0.x
FL VSTi: the plugin is blacklisted in Cubase 9.5
Sytrus and other plugins: incorrect hints for some controls
VFX Level Scaler: velocity isn't calculated correctly
WaveShaper: Reset option sets first envelope point to maximum instead of minimum

(macOS)
Access violation during drag and drop from picker panel to playlist
Dynamic wallpaper menu item is not visible
F1 doesn't open help
Memory leaks in some cases
-
White screen in Glitch 2 plugin

20.0.4 (30 August 2018)

Changes
ZGE Visualizer: maximum layer count increased from 50 to 100
ZGE Visualizer: new "Solo layer" feature to quickly test a single layer

Bugfixes
(common)
Delete function for effect plugins doesn't work for 3rd party plugins
Pattern clips in the PL are not updated properly when the patterns are transposed
Previous versions crash when a sample is stretched
Show in browser doesn't work for some files (for example: FPC's scores)
-
FPC: "Online content" option shows old local content library instead of new online one
Fruity Free Filter: filter type is incorrect when loading settings that were saved in FL 12.5.x
Plugin Manager: dll files that aren't VST plugins are shown as plugins with a scan error

(macOS)
Crash when controls are right-clicked
Cursor changes when hovering over detached plugin when PL is behind a plugin window
-
Patcher: adjusting bandwidth with the mouse wheel in Parametric EQ 2 doesn't work
Patcher: keyboard input in some plugins doesn't work
Patcher: no tooltips in hint bar when hovering plugin controls
Wrapper: incorrect audio time stamp provided to AU plugins

20.0.4 beta (22 August 2018)

Changes
(common)
Added "Delete" item to effect slot menu in the mixer
Chop audio clips in 8th and 16th
Consolidated audio now shows above the muted original track instead of below, in the PL
Improvements to CPU usage when mixer tracks are routed to others and threaded processing is on
Open a sample or plugin from the browser without showing the channel window by holding the ALT key
Transpose multiple instrument channels and patterns

User data folder can now be reset to the default value, in the File settings window
-
Diagnostic: user data location is shown in reports
Patcher: improvements to CPU usage

(macOS)
Added About, Preferences and Quit items to macOS menu

Bugfixes
(common)
Arrange windows into workspace doesn't always work correctly
Auto-save to a folder with unicode characters fails
Auto scroll option from menu doesn't always work
Can't select an arrangement if it name starts with a "-" character
Can't tab to next field in About window
Channel names are not remembered for plugins that were converted from VST to native FL format
Channel rack scrolls incorrectly for some controllers
Consolidate always exports a 32 bit sample
Crash when detaching a maximized window
Dock site for a mixer track is reset when a mixer track preset is selected
Error message "Problem in Directory Watcher" is displayed on startup
Fine control for master pitch knob is not fine enough
List of audio clips in the picker panel is not updated when a plugin sends audio to the PL
Main window doesn't focus when user clicks on a toolbar button while another program has focus
New channels open with "#2" text after the name
No undo for the precomputed "Sample start" and "Sample length" controls
Pattern clips are not placed in the PL after recording when "Disarm on stop" is on
Pattern names that start with a "-" character do not always show that character
PR grid is glitchy when transposing notes
Problems using Ctrl + Shift + Left or Right while the graph editor is open
Render dialog progress bar stutters when "Slave playback to host" is enabled in Edison
"Show in browser" and "Locate sample in browser" sometimes add search paths when not necessary
Sound after setting the song position back to the start
Time signatures are not loaded correctly from project files
Toolbar presets that start with the "-" character are shown as caption items and can't be clicked
"Undo recorded stuff" sometimes deletes recorded clips for the wrong undo steps
-
Delay Bank and Love Philter: the "next" indicator doesn't work for negative values
DirectWave: access violation using "Autodetect pitch"
DirectWave: the hint for the sample editor is difficult to read
Edison: dump score to PR and detect pitch regions crash and freeze
FL Keys: access violation when clicking the ? button while loading a bank
Harmless and Harmor: labels on some subharmonic sliders are incorrect
Plugin Manager: 32 and 64 bit versions of some plugins are not combined automatically
ZGE Visualizer: video export to locations with unicode characters fails

(macOS)
Access violation when realigning a detached browser window
Access violation when using a dynamic wallpaper
Copy / Paste with the keyboard doesn't work in open and save dialog windows
Core Audio buffer size is capped at 2048 samples
Crash recording audio
Cursor not changed properly when dragging zipped projects to the menu toolbar
Default buttons in message dialogs are not always correct
Escape key doesn't abort searching for samples and loading a project
FL Studio logo in about window stays on screen when the program is minimized
FL Studio logo's animation in about window is choppy
Graph editor window blinks when holding the K key
Graph editor window sometimes shows beneath the channel rack
Graphical issues when moving an undetached window inside the FL Studio window
Hidden detached windows show up when the FL Studio window is minimized and then restored

Issues with Maschine Jam
Magic lasso doesn't work
Main window stops being resizable
Main window is moved differently than regular macOS windows
Num pad enter key doesn't work anymore
-
Edison: abort sample loading doesn't work
DirectWave: crash on open
Patcher: some presets show incorrect fonts when opened

(Windows)
Installer doesn't work with unicode characters in folders

20.0.3 (6 July 2018)

Changes
(common)
Added "Record to step sequencer" option to record button
-
DirectWave: full sample filename is shown on sample tab
ZGE Visualizer: added "Uncompressed" to the video export options

(macOS)
Diagnostic application is ported to macOS

Bugfixes
(common)
Access violation when patterns in a group are cloned
Canceling "undo recorded stuff" removes audio clip from the playlist
Can't remove generic links in some cases
Channel with sample offset knob at 100% still makes sound when note is played
Clicking on a clip in the playlist doesn't deselect items in the picker panel
"Duplicates not allowed" error when saving files
Export score to sheet uses incorrect time signatures
Graph editor inverts appearance when resizing outside of the screen
"Hold and stop" performance mode clips don't work on Machine Jam
Incompatibilities in sample file names between Windows and macOS versions of FL
"Make unique" doesn't update the channel name if the channel currently has its default name
Name of audio clips in the picker panel is not updated when the name is changed in the channel rack
New automation clip is sometimes added to a hidden track
PDC can get out of sync when moving mixer tracks around
Preview of audio clip's sample doesn't have the same volume as playing the audio clip in the playlist
Problems unlocking from the about window
Startup log files are not deleted when they're too old
-
Convolver: EQ background not painted properly
DirectWave: conflict between parameter name and value hints when using mouse wheel
DirectWave: file creation error when using the drum stretching tool
DirectWave: crash loading project with zone names that include non-ascii characters
Gross Beat and Maximus: about image is not scaled
Newtone: crash when its about window is shown
Reeverb: FL 12.5 projects load in MID mode when they were saved as SIDE
Transistor Bass: wrong gate position when scaled
Video Player: crash
Wave Traveller: spline presets are saved incorrectly in 64 bit
Wrapper: doesn't show plugin and manual latency values properly
Wrapper: various VST 3 plugins crash when the editor window is closed or opened
Wrapper: VST 3 shell plugins are not loaded correctly

(macOS)

Alt + click in the playlist doesn't work correctly
Arrow keys skip entries when navigating context menus
Arturia plugins crash if their editor is open while FL is closed
Computer fans are very loud while FL is running - added optional setting to fix this
Crash creating thumbnails for Maxx' plugins
Deferred generic messages don't work
Detached windows don't get proper focus
Detached windows are not hidden when FL is minimized
Drawing issues with Maxx' plugins
Freeze opening projects that have AU plugins and time signature changes
Incorrect settings saved when Platform-M USB device is used
MIDI controller types detected incorrectly
No response to Akai MPK 261 MIDI commands
Plugin database adds [64bit] suffix for all plugins
Problem replacing a sampler channel with a Granulizer
Problems with keyboards that have a non-US layout
Random crashes sending sysex messages to MIDI devices
User interface isn't updated while processing
Virtual MIDI ports are not detected
-
Harmor: crash using image resynthesis
Patcher: crash when adding plugins
Slicex: shift + drag doesn't add new slices

(Windows)
Closing FL opens folders in File Explorer
When loading a zip file saved in macOS, FL tries to open a hidden file with the name of the project

20.0.2 (1 June 2018)

Changes
(common)
Ask user if the project should be saved when a regcode has been downloaded or applied from a file
Updated FL Studio Mobile to version 3.1.91
-
FPC: added option to clear a pad to an empty state

Bugfixes
(common)
Audio recording doesn't work if "Auto create clips" is off
Browsing for a sample from various places adds a new folder to the browser when it's already there
Can't read unicode characters from projects saved in FL 11 and earlier
Channel rename dialog doesn't show current name if it's the same as the default
Crash clicking on a channel button when the picker panel is hidden
Opening a folder with thousands of samples in the browser is very slow
PDC is broken in some situations
Rendered and consolidated clips can't be reordered in the picker panel
-
FPC: note names in piano roll are not updated when a sample is loaded
Harmless: open dialog is not shown when the Timbre control is set to "Custom"
Plugin Manager: native FL plugins are not combined when the option to combine bit sizes is off
Sytrus: FX send selector is limited to -100 to 103 instead of -125 to 125
Video Player: no audio when rendering
Wrapper: pressing F1 to show the help file uses an incorrect url

(macOS)
Command line options don't work
Crash when quickly scrolling to the bottom of the graph editor window
Key presses don't work in popup menus
Settings not saved on exit on some systems

SysEx messages are not always handled correctly
Various MIDI input issues

20.0.1 (25 May 2018)

Changes
(common)
Updated FL Studio Mobile to version 3.1.9

Bugfixes
(common)
"Add to plugin database" doesn't work when a browser snapshot without the plugin database is open
Consolidation of playlist tracks shouldn't work if the whole track or the selection is muted
Crash dragging items from the picker panel to the playlist
Loop recording can be sluggish
Mouse cursor is in wrong position when moving multiple clips in the playlist and notes in the piano roll
Mouse cursor is laggy when it's over the graph editor in Windows 7 and 8
PDC not applied randomly to sampler and audio clip channels
"Purge unused clips " doesn't affect all arrangements
Saving a channel state can result in an "Unable to create directory" error
"Select unused" in the playlist will also select clips that are used as regular sampler channels
Toolbar is not correct at 150% scaling
-
Edison: space bar triggers playback in FL instead of Edison when the mouse is held down in Edison
Fruity Delay: settings are not applied when loading a preset or project
Fruity Delay: keeps processing when it's reset (stop button pressed twice)
Fruity Limiter and Maximus: incorrect latency when loaded from the Installed section of the database
Patcher: no thumbnail shown for plugins even though there is a thumbnail in the plugin database
VFX Level Scaler: display isn't updated properly when animations are off
Video Player: can be smart disabled while it shouldn't

(macOS)
Changing a preset hides and shows the plugin window
Changing the name of a search path in File settings doesn't work very well
Sending MIDI messages doesn't always send the correct data
-
Fruity Delay: no sound
Fruity Envelope Controller: no envelopes displayed

20.0 (18 May 2018)

Changes
(common)
Main pitch knob pauses at every 100 cents

(macOS)
Changed captions for Ctrl and Alt toolbar buttons to Cmd and Opt

(Windows)
FL Studio ASIO's "Hard clip at 0 dB" option is now on by default
Scroll lock key state is no longer changed when toggling the auto-scroll toolbar button

Bugfixes
(common)
All user folders are now created when FL is started, if they don't exist yet
Audio interruptions when switching project time signature / division mode in settings window
"Browse presets" doesn't work after selecting a preset in a plugin
Closing projects is slower than it was in earlier versions
Crackling depending on how tracks with latency are routed

Crash because of negative latency while loading a project
Crash opening a folder with samples in the browser
Channel is renamed when "Auto-name channels" is off and a preset is dropped on it
Consolidate and merge don't use source clip's color
"Consolidate this track" can result in an empty sample file name
CPU panel popup menu doesn't always show up
Divide by zero when loading the Square A Saw - Oxygen demo project
Graph editor: window is closed when touched on a multi-touch monitor
Graph editor: visual glitch when there's a note at C0
Graph editor: notes can be dragged beyond the upper and lower bounds
Graph editor: can't use when channel rack is detached
Grid in piano roll, playlist and event editor lacks intermediate steps when zooming
Importing a MIDI file to the piano roll doesn't always work
Incorrect plugins opened in demo mode
Incorrect memory usage reported in Windows 10 1803 (FL 64 bit)
MDK's Leap of Faith demo project freezes when opened
Mixer isn't focused when Ctrl+L is used on a detached channel settings window
Negative song position in some cases
Piano roll is slow to open when there are a lot of notes
Piano roll: "Paint in drum sequencer mode" doesn't use correct snap value to place notes
Picker panel: Quick render pattern doesn't switch to audio clips tab when done
Playlist and Piano Roll: incorrect snap when resizing clips and notes
Playlist and Piano Roll: grid lines aren't scaled
Playlist: "Consolidate selection" places the created audio clip randomly
Playlist: the collapsed state of folder tracks isn't saved in the project
Playlist: problem moving clips up and down over hidden collapsed tracks
Playlist: can't drag clips to the last position of the picker panel
Recording precount menu item isn't checked when the option is on
Some MIDI controllers don't work correctly (e.g. Launchpad Mk2)
Song time is incorrect because of tempo automations
Toolbar: overflow menu disappears when separators are enabled
Toolbar: oscilloscope only paints partly in some cases
Toolbar: glitches moving control over other controls
Toolbar: menu has incorrect entries when the FL window is narrow and a toolbar preset is selected
Toolbar: controls are in the wrong order when selecting a preset
Toolbar: not always repainted correctly when detached
"Type in value" will change the parameter value even when the window is canceled
Various issues with Playlist and Piano Roll grid
-
Control Surface: freeze setting the move speed of a control
DrumSynth Live: the maximum value of the Send selector is too low
FPC: no indication of selected note layout when it's in the user data folder
Fruity Balance: meters show input signal instead of output in Patcher
Fruity Flanger: denormalization in 32 bit version
Fruity Peak Controller: Mute parameter is on by default
Harmor: dropping a sample on the B image tab results in a black rectangle in some cases
Harmor: incorrect hints shown in some cases
Patcher: empty space in front of the first column of the parameters popup menu the scrollbar is visible
Reeverb 2: audio glitch when the plugin is unmuted
VFX Level Scaler: center parameter affects velocity when it shouldn't
Vocodex: envelope follower's freeze parameter has no name when editing events
ZGE Visualizer: freezes during export when the "Sync video with song position" option is enabled

(macOS)
8-bit wave files don't open
Browser shows on startup when it's set to auto-hide
Browser closes when GUI scaling is changed
Crash right-clicking the preset button on a plugin window
Drag and drop to move items in the picker panel doesn't work for multiple selection
Incorrect data sent to MIDI devices
Missing files in zipped loop package

MP3 files in the playlist have an incorrect position when opening projects created in Windows
No warning that the "Export as score sheet" feature is unavailable
Problem focusing the inline editor for search path items in the File settings window
Step sequencer is inaccessible when holding the Ctrl key
-
Edison: space bar triggers host playback instead of plugin's
Formula Controller: can't type in input to output field
Newtone: editor window issues
Sakura: can freeze because of invalid audio data
Wrapper: resizing NI plugins can result in a partially painted plugin

(Windows)
FL Studio ASIO has memory leaks

12.9.5 [beta] (20 April 2018)

Changes
(common)
Added latency compensation for side inputs and outputs of channels and effect plugins
Countdown before recording is now off by default
New stutter patterns for clip chopping
Option to resize all playlist tracks to a specific percentage
PR: renamed "Select possible conflicts" to "Select overlapping notes"
"Shared data folder" has been renamed to "User data folder" in File settings
The floating hint bar is now never shown when the option is off
Toolbar:Online panel and Downloader button are now separate items
Toolbar: stay-down buttons are now all orange when down
Toolbar: when the main menu is removed, it's added to its own column of the overflow menu
Toolbar: main pitch knob now snaps at 100 cents
Toolbar: song title is easier to read
"Touch keyboard" has been renamed to "Touch controller"
User data folder is automatically searched for samples (doesn't have to be in the search path list)
-
Control Surface: snap to grid option
DrumSynth Live: added send track names to control's popup menu
DrumSynth Live: send works for any mixer track now
Plugin Manager: plugins can be dragged to FL to load them
Slicex: added popup with track names to send control
ZGE Visualizer: improved FFT quality

(macOS)
Control Creator is available now

Bugfixes
(common)
Add plugin menus don't update after a plugin has been favorited
Browsing files from a plugin doesn't always work
Channel Rack: audio clips are added in reverse order
Dragging "Save preset as" to Windows doesn't work immediately
Error on auto save because of missing backup folder
Improvements to the way the offline help file is used
Improvements to grid lines in the playlist and piano roll
Improvements to finding a unique name for merged patterns
Freeze adding a step to the step sequencer after creating a new pattern
Lag when adding channels to the PL
Mixer: right-side dock is always hidden when a project is loaded
Mixer: send icons colors are incorrect when using custom track colors
Note preview in graph editor is cut short
Notes are not always imported when opening a MIDI file
PL: clips are not selected in the picker panel when they're dragged around

PL: track activity color is incorrect in some cases
PL: various problems with snap and grid lines
PL: the preview when dropping multiple samples doesn't use the correct track heights
PL: crash using shift+select on the last pattern in the list
PR: preset selected from drop down menu of chop tool is forgotten when the Time Mul knob is used
Plugin database is empty after install to an existing FL folder
Plugin windows can be hidden behind the browser when detaching and reattaching them
Project info window shows up in wrong location when FL is stretched over multiple screens
Project files opened from the command line are not added to the recent projects menu
Reversing an audio clip's sample doesn't revert the regions
Send to Edison has unicode issues
Song position indicator is shown at high zoom level when "Precise time indicator" is off
Stuck notes when using an arpeggiator
Toolbar: various fixes to output scope
-
3xOsc & Patcher: names of some per-note parameters are not set
Control Surface: control names aren't loaded correctly
DirectWave: "Show note names in host" option should not be in the global section
DirectWave: unable to edit zones 255 and up in the zone editor
Edison: silence inserted when switching from "On input" to "On play" while the record button is pressed
FPC: requests permission to overwrite files for each sample even when there are duplicate samples
Gross Beat: editor width is not remembered when switching to compact mode and back
Multiband Compressor: Ratio knob for the low band doesn't reset to the middle position
Newtone: can't drop samples from browser
Sakura: high cpu usage in some cases
Sytrus: indication of active tabs is not updated in real time
VFX Level Scaler: some parameter names are incorrect
VFX Level Scaler: doesn't work when the editor is hidden
VFX Level Scaler: settings are not applied immediately

(macOS)
Crash dragging pattern to PL
Crash on close when channel rack is detached
Error when using "Export project bones"
Export to zip freezes
Improvements to Audio Unit support
Improvements to keyboard handling
Incorrect save location when selecting a project data folder
Mixer: visual glitches after docking tracks
Peak meter cursor shows over other applications
PR: maximized state is not remembered when the window is closed and shown again
Pressing F12 to close a plugin triggers an access violation
Toolbar: have to click twice to select a popup menu option
Toolbar: access violation removing "space" items
-
Control Surface: dragging to plugin from Finder doesn't work
DirectWave: clicking on the sample tab crashes FL
HTML Notebook: requested files and urls are not loaded
Parametric EQ 2: bands move a little bit horizontally when pressing the mouse button over them
Plugin Manager: Waves plugins are not verified during scan
Wrapper: crash using Sausage Fattener VST plugin
Wrapper: "Use fixed size buffers" setting is not recalled correctly
Wrapper: Massive VST has a black editor window
Wrapper: closing a project with more than one Audio Unit plugin crashes

(Windows)
Toolbar: wrong height on first start when Windows is set to 150% scaling

12.9.4 [beta] (26 March 2018)

Changes
(common)
"Alternate mixer track highlighting" is now on when high visibility mode is on
Better names when merging and consolidating clips in the playlist
Menu items that have no hint use the caption as a hint instead, when high visibility mode is on
MIDI import has options to import time signatures and to treat zero-velocity notes as note on messages
User data is now saved to the "shared data" folder by default
-
Edison: added keyboard input button
FL Studio Mobile updated to version 3.1.891
Fruity Compressor now optionally reports its latency (on by default)
Newtone: scale menu is not closed by right-click anymore
Plugin Manager: verify option is now on by default
Slicex: new option to set the cut group for all slices to a value
ZGE Visualizer: added "Stripe Peeks" by Youlean

(macOS)
Improvements to scaling when there are multiple screens
-
Edison: denoise is now disabled

(Windows)
FL Studio DXi is no longer included

Bugfixes
(common)
Access violation when the piano roll is empty and Shift + D is pressed
Can't drag audio from the sample preview in the channel settings window to plugins
Mouse cursor remains invisible when F3 is pressed (to show a popup menu) while updating a control
News panel is empty until clicked
Notes pasted between two patterns are off by one or two bars
Punch in and out marker menu entries are visible when they shouldn't be
Quick chop crashes when there are no notes
Sampler pitch doesn't change after choosing stretch modes
Selecting Mode > Stretch in channel settings doesn't work
Show drop area for samples dragged from plugins in the playlist
Touch keyboard fade out is incorrect at lower animations settings
Various fixes and improvements to new toolbars
-
3xOsc: the rounded saw waveform is incorrect in 64 bit
DirectWave: legato mode causes unstoppable notes
Edison: center line of EQ is now more visible
Fruity Phaser: cpu spikes in 32 bit version
Slicex: cut group edit box is too narrow
VFX Level Scaler: the plugin doesn't process when the editor window is not visible
VFX Level Scaler: automation value range is incorrect

(macOS)
Cmd + click in the browser doesn't replace a sample
Cycling through browser items stalls at at long file names
External tools can't be selected
"Input disabled" warning is shown too often
-
Audio Unit version of Melda plugins aren't listed in Plugin Manager

12.9.3 [beta] (6 March 2018)

Changes
(common)
Added "Test" option to Options menu to run predefined tests

Renamed the "(none)" presets used to delete generator and effect plugins to "(delete)"
Renamed channel settings option "Load ACID markers" to "Load slice markers"
Toolbars have been changed to allow more customization
-
Harmor: visual feedback panel scaling is saved in the plugin settings
ZGE Visualizer: new effects from Youlean: "Blur", "Motion blur", "Bloom" and "Color correction"

(macOS)
BooBass and SimSynth are available

(Windows)
Newtone: the editor is now scalable
Newtone: added option to prevent saving of .zpa files

Bugfixes
(common)
Audio clips don't play from a position other than the start when there is tempo automation
Channel rack: the horizontal scroll position is not reset when a new project is opened
Crash rendering while a mixer track is armed
Double-click a pattern clip to edit the pattern doesn't show the PR
Error message: "Wrong track index in GetIDName: 127"
Graph editor: problems dragging notes
Graph editor: shift for a step causes steps on other channels to play out of sequence
Knobs on first page of channel settings window don't respond to press-and-hold on touch screen
Native FL plugins are sometimes not found when trying to load them
No color or icon when save-dragging a Parametric EQ 2 preset to another slot
Online help file isn't used in all cases
Open in new channel doesn't use preset file's color and icon when "auto-name channels" is off
Out of memory error loading "Iridium - Hanging on (remix)" demo song
Override Generic Links "Smoothing envelope time" doesn't display a hint
PL: clicking on overlapping clips to cycle through them doesn't work
PL: dragging a plugin preset over the window shows a drop location
PL: problem with track collapse/expand icon and text ellipsis
PL: punch in and out marker types aren't available
PL: crash when deleting an arrangement
PL: drag and drop issues in picker panel
Sampler pitch doesn't change for different notes
The preset next and previous buttons on effects ignore the auto-name setting for the color
-
DirectWave: parameter changes are not sent to host
Edison: broken audio when FL is in song mode
Edison: denoiser crashes on long samples
Fruity Compressor: audio glitch

(macOS)
Can't create plugin thumbnails
Hot keys assume a qwerty keyboard layout
Layer channel options down arrow isn't scaled properly
Plugin Manager shouldn't have the "Combine 32 and 64 bit versions of a plugin" option
-
Harmor and Transistor Bass not painted properly on older Macs

(Windows)
PL: dropping a wave file from Resonic Player doesn't stop playback in the other program
Waves plugins can't be loaded through the "More..." window
-
Newtone: can't be maximized by pressing the enter key
Newtone: uses old scrollbar style
Razer Chroma: Ornata wave mode doesn't work

12.9.2 [beta] (12 February 2018)

Changes
(common)
"Hide plugin toolbars by default" is now on by default
In-app purchase of FL and plugins
Mixer: option to clear a track
New VFX Level Scaler plugin for Patcher
Piano roll: the root note is more visible with keyboard scale highlighting
Playlist: option to completely hide grouped tracks
Playlist: mini preview in the scrollbar is now on by default
Playlist: show drop location of samples when dragging from the browser
Playlist: multiple takes are grouped when recording
Playlist: options to mute and unmute all clips on a track to make undo of consolidation easier
Option to unlock with a downloaded regcode file in the about window
Render window: new options to save loop and playlist markers
Render window: renamed "Save Acidized" to "Save tempo information"
Render window: renamed "Save slice markers" to "Save note markers"
User Projects and Backup folders are now in an "FL Studio" subfolder in the shared data folder
-
Convolver: added control to report an impulse's latency to the host
Razer Chroma: Blade Pro (2017) support
Reeverb 2: same phase is now used for left and right signals
Updated BassDrum, Drumaxx, Drumpad, Effector, GMS, Hardcore, MiniSynth, Morphine, PoiZone, Sakura, Sawer and Toxic Biohazard to latest versions
ZGE Visualizer: increased responsiveness to "Linear" peak effect
ZGE Visualizer: color button on HTML tab to paste color into test
ZGE Visualizer: HTML text position and size can now be specified in decimals
ZGE Visualizer: copy/paste layer to and from clipboard

(Windows)
Updated FL Studio Mobile plugin to latest version

(macOS)
- AudioUnit support
- Plugin Manager now uses a bridge to scan plugins, for more stability

Bugfixes
(common)
Access violation when deleting patterns
Attempting MP3 export at unsupported sample rate produces MSGForm error
Audio clip plays from an incorrect sample position
Can't play notes on channel window if that channel is not in the selected filter group
Can't scroll by dragging in picker panel at maximum height
Crash dropping Fruity Slicer on a playlist track header
Consolidate doesn't default to "Resample" when creating channels
Consolidate doesn't switch to realtime stretch when there are tempo changes
Choppy GUI after long recording
Cloning a channel doesn't use a new name the first time, when auto-name is off
Dropping a 3xOsc preset on the playlist causes an access violation
Edit events window is always zoomed in all the way when opened
Generator plugins can be added to the audio and automation filter groups
High visibility mode causes controls to look or act wrong
Internally rendered audio files don't have tempo information embedded
"Maximize to all monitors" doesn't work
Mixer: can't resize window after docking a lot of tracks to the side
Mixer: access violation using the "wide alt" view
Mixer: effect slot is not renamed when a plugin is replaced by another
Playlist: Automation clips can have envelopes with one single point
Playlist: track names aren't visible
Playlist: track headers are black after selecting an arrangement

Playlist: problem merging arrangements with performance mode data
Playlist: "Select unused" doesn't take arrangements into account
Playlist: time selection is broken when cell snap is active
Playlist: accidental replacement of audio clips when dropping them
Plugin Manager finds no plugins
Tempo map can slow down loading a project or opening the piano roll window
Undo "turn event into automation clip" doesn't work
-
Center: on/off labels are the wrong way around
DirectWave: slide notes affect notes on all channels
DirectWave: notes aren't sustained, cut off abruptly or triggered multiple times
DirectWave: problems importing soundfonts
FPC: bank colors aren't updated when a pad is selected from the menu
Harmor: incorrect hint for preview keyboard
Newtone: loop button doesn't stay down
Parametric EQ 2: scaling issues
Patcher: plugins are labeled "Plugin state" when replaced
VFX Key Mapper and VFX Keyboard splitter: unused voices aren't released properly

(macOS)
About menu links don't work
Channel rack keyboard focus issues
Crash when using the enter key to load a plugin from the plugin picker
Piano roll glitch
Plugin Manager: doesn't recall custom search paths
Plugin Manager: Waves plugins are not verified during scan
Plugin parameter values jump during adjustment
VST2 plugin resizing issues
-
DX10: audio issues
Edison: various keyboard shortcuts don't work
FPC: broken UI
Free Filter: critical error loading the plugin state
Newtone: drag and drop freezes program
Parametric EQ 2 and Reeverb 2: UI problems on older Macs
Vocodex: UI problem

12.9.1 [beta] (21 December 2017)

Changes
(common)
Additional time options for Tools > "Dump score log to selected pattern"
Channel names can now be aligned to the left or centered
Consolidate selection of pattern clips in Playlist to audio clips
"High visibility" option will show selected options more clearly
Increased kerning of text in the browser
Improvements to song position calculations when there are tempo changes
Metronome is delayed to compensate for mixer's output latency
Mixer: option to reset all manual latency values to zero
Mixer: two new layouts with track names at the bottom
Mixer: latency icons show blue for manual latency and orange for automatic latency
Mixer: use (ctrl +) mouse wheel over a latency icon or label to increment and decrement it
Mixer: removed "Set for all tracks" option from plugin delay compensation menu
Mixer: the maximum manual latency is now 5 seconds instead of 1
Option to show password in About window
Picker panel: "Select from playlist / channel rack" option to select clips when clicked on in PL and CR
Playlist now has 500 tracks instead of 199
Playlist has support for multiple arrangements
Project is changed to time signature mode if it uses 4/4 time division
Punch in and out recording markers in the PL

Quantize automations is now off by default
Recorded data is shown in the PL while recording
Sample start position for sample and audio clip channels
Sample scope in channel settings now has line at zero
Transport toolbar is broken up into two single row toolbars
-
DirectWave: browser now reacts to enter key
Edison: support for 24 bit wave file export
Edison: "Fancy mode" is off by default
FPC: added preset selector to pad rename window
FPC: show activity on empty pads
Plugin Manager: store relative paths for preset and FL plugin filenames in plugin database NFO files
Razer Chroma: now uses generic device detection with support for more devices
Reeverb 2: added Mod Speed and Mod Depth parameters
VFX Keyboard Splitter: note names are shown in the keyboard view
Wrapper: a manual latency offset can now be defined
ZGE Visualizer: new parameters for Polar and SplinePeaks effects
ZGE Visualizer: support for 3D-models in OBJ format
ZGE Visualizer: show "Paused" text while in pause mode
ZGE Visualizer: show a folder select window when assets are missing
ZGE Visualizer: new "Tree display" option in effect select menu
ZGE Visualizer: support for custom export resolutions

(Windows)
Diagnostic: lists products that can be unlocked

(macOS)
Use OpenSans-Regular instead of Arial for small font

Bugfixes
(common)
Add plugin menus don't show first folder item
Clip placement when recording multiple tracks is wrong
Crash when saving project while FL is closing
Crash loading the demo project "Adam Szabo - One Day (Funky Mix)"
Crash when recording MIDI data
Ctrl + left click on samples in the browser does not replaces samples
Double-click on audio or automation in Pattern Picker doesn't always focus the correct editor
FL plugins can now communicate unicode filenames and strings with the host
Incorrect channel name when a plugin creates a new audio clip
Korean characters are not displayed
Memory display options are not remembered
Mixer: effect slot name is not reset when effect is deleted
Mixer: color and icon change menu items are enabled on empty effect slots
Mixer: moving tracks with mouse wheel positions the cursor over controls that respond to mouse wheel
Mixer: the dry signal for an effect slot is now delayed to compensate for the plugin's latency
Mixer: adjusting volume for multiple selected tracks does not remember relative values
Mixer: muting track causes clicks
Mixer: crash when arming or disarming tracks while recording
Mixer: moving tracks around produces high cpu usage and crackles in the sound
Name of empty effect slot and new channel is not set to plugin name when the "auto name" option is off
No shortcuts in pattern menu
PL: Shift + C selects clips for current but also for previous source
PL: View > Time segments doesn't work
PL: "Actions" in marker popup menu is ticked for markers with type set to "None"
PL: underruns when moving markers with time signatures
PL and PR: can't scroll through tools popup menu with right-mouse button and scroll wheel
Plugin window toolbar is sometimes open or closed after loading a preset, when it should not be
PR: quantizing recorded notes in "Line" snap mode leads to inconsistent lengths
"Preview mixer tracks " option only goes up to 104 instead of 125

Render to DW program window has graphical keyboard glitch
Several resizable plugins have oversized editors when a project is loaded
Stack overflow loading "Iridium - Hanging on (remix)" demo project
-
Delay 3: artifacts at sample rates below 44100 Hz
DirectWave: auto and fixed checkboxes for Glide mode are reversed
DirectWave: incorrect mouse cursor for zone list / zone grid splitter
DirectWave: no pause at center of mod matrix knobs
DirectWave: "Delete part after loop" uses incorrect loop end
DirectWave: crash when there are unicode characters in the file path
DirectWave: no longer referencing folder containing project for audio files
Edison: send to playlist and to channel options don't work
Edison and others: incorrect channel name when sample is sent to an audio clip
Edison and others: name of sample dragged out of plugin is the same as the original
Formula Controller: recompile required after loading a project
FPC: splitter position changes when resizing
FPC: envelope editor hidden behind layer panel
Ogun: Master Level parameter is shown as an unknown event
Patcher: crash loading a preset
Patcher: no preset selector for SimSynth
Patcher: Fruity Dance's "Show settings" button doesn't work
Razer Chroma: high cpu usage when idle
Scratcher: parameter values jump around when automated
Sytrus: FX send selector uses an incorrect track index
ZGE Visualizer: BoxedIn effect's ImageMove parameter has no effect
ZGE Visualizer: buffered image displayed with wrong aspect in "Image" layer
ZGE Visualizer: external content paths aren't saved relative to presets folder
ZGE Visualizer: wrong effect selected at bar 25 of demo project "Tomas Chavez - Raubana - LIFE"

(Windows)
Plugin Manager: "can't create file" error during scan

(macOS)
Can't input characters with various languages
Can't load project created in alpha release
Quantize in the PR sometimes crashes
-
DirectWave: font issues
DirectWave: editing zone name doesn't work
FPC: holding ctrl or shift opens a save window
Notebook: rich text format characters aren't displayed
Patcher: Parametric EQ 2 has a graphical problem
Patcher: scrolling over Parametric EQ 2 causes a crash
Plugin Manager: plugins are always verified, regardless of the state of "Rescan previously'
Plugin Manager: VST and VST3 plugins are not combined
Wave Candy: no resize cursor on borders of scope window
Wrapper: Cakewalk CA-2A plugin crashes
ZGE Visualizer: can't load ImageUnscaled effect

12.9.0 [beta] (24 October 2017)

Changes
(common)
Time signature support in project settings and time signature markers in the playlist and piano roll
The mixer now has 125 inserts
Automatic PDC works when channels and tracks with different latencies are routed to a track
Mixer racks can now have custom input and output latencies defined instead of pre and post delay
Legacy precomputed effects can be edited in the channel settings window again
Added sample start and length precomputed effects
FL now uses the online version of the help file

Locating plugins is faster in some cases
Improved visibility of clip borders in solid view mode
Most FL plugins now support unicode characters when exchanging filenames and other text with FL
Sync option for tempo tap is now off by default
-
DirectWave: a zone's loop type can now be set for all selected zones at once
DirectWave: new "Copy to selected zones" option for some zone parameters
Fruity Reeverb is now an FL plugin with a 64bit version
Patcher: improved memory usage of delay buffers
ZGE Visualizer: layers can be collapsed
ZGE Visualizer: buffered layers are more obvious now
ZGE Visualizer: new "SplinePeaks" effect

(macOS)
Autogun and DrumSynth Live are now available on macOS

Bugfixes
(common)
Memory leak when closing FL
Mixer: delay compensation doesn't work well when tracks are routed to delayed and non-delayed tracks
Picker panel: odd behaviour with ctrl+click and a selection
Force refreshes option can lead to too many window redraws
-
Beepmap: freeze when pressing the copy button
FPC: can't import monolithic DirectWave program files
FPC: access violation changing icon and color from a pad's context menu
FPC: wrong pad affected when changing icon and color from a pad's context menu
FPC: pad colors and icons don't update when switching banks by using the prev and next pad buttons
MIDI Out: pitch bend data from older projects not played back correctly
Patcher: right-click on preset selector in plugin window doesn't open FL browser to the preset folder
Patcher: Fruity Formula Controller help doesn't show the correct page
Sytrus: huge cpu usage in 32 bit version in some situations

(macOS)
Access violation - PRForm already exists
Dialog windows open at position of focused windows
IL Remote is not detected (64 bit)
Occasional incomplete or corrupt wave file exports
Playlist: the keyboard shortcut Shift+M (stretch mode) doesn't work
Text input in plugins doesn't work
TS404 tab is visible in the channel settings window
-
Edison: detect tempo causes application to crash
Hardcore: crash when inserting plugin
Patcher: Parametric EQ2 editor window is blank
Plugin Manager: new search paths are not saved
Plugin Manager: log file is not created
Plugin Manager: doesn't remember its settings
Soundgoodizer: crash on load
Wrapper: only one instance of any FabFilter VST3 plugin can be loaded at the same time

12.5.1 build 165 (24 November 2017)

Changes
FL Studio Mobile plugin updated to version 3.1.83

Bugfixes
Plugin scan error (mostly when doing a fast scan after a plugin had been added)
Plugin Manager: verified plugin scans terminating due to the FL Studio VSTi (multi)

Beepmap: freeze when clicking the COPY button on Beepmap
FPC: wrong pad affected when changing color and icon
Patcher: crash when changing icon in an FPC instance
MIDI Out: pitch bend from earlier versions is processed incorrectly
FPC: colors and icons on pads aren't updated correctly when changing banks
ZGE and Video Player: video dll not found

12.5.1 (26/09/2017)

Bugfixes
DirectWave: default values of some modulation matrix knobs are incorrect
DirectWave: trigger type can be changed when trigger group is "none"
FPC: crash when editing the name of a pad from the main FPC menu
Fruity Filter: X2 "on" and "off" labels are mixed up
Fruity Filter: X2 parameter causes glitches in sound
Plugin Manager: changes to plugin category aren't saved
Plugin Manager: unverified plugin presets are saved with the full path as the name

12.5.1 RC2-RC4 (21-22/09/2017)

Changes
Dock panels open when mixer tracks are assigned to them

Bugfixes
Deselecting all items in a row doesn't work when the first item is not at the start (playlist and piano roll)
FLP file becomes much larger when patterns are grouped
Some VST plugins can hang when the plugin window is detached and its opened and closed repeatedly
Strum tool turns step notes into regular ones on all channels

Compressor: parameter values jump strangely while tweaking parameters
Delay Bank: Oversample checkbox text is truncated when FL is scaled
Harmor: right-click on switch changes value of control
Mute 2: noise when muting and mixer slot level is not at 100%
Patcher: PromptEdit_Ex function not implemented
Wrapper: memory leak when some VST3 plugins can't be loaded
Wrapper: Waves plugins that were moved from old to new Waveshell can't be found
ZGE Visualizer: crash with "Polar" and "Peak band controller"

12.5.1 RC1 (11/09/2017)

Changes
"Auto name effects" option is now off by default
Hold shift while dropping an item onto a playlist track header to avoid or force auto-lock to content

Control Surface: Min and Max properties can now be set using percentages
Control Surface: "Delete" option will delete all selected controls
Formula Controller: uses FL help file for syntax instead of its own custom file

Bugfixes
Crash closing project with Wave Candy and stretched samples
DWP export doesn't work well with Chinese characters
Invalid data error when the demo project "nucleon - Fruity Delay 3" is opened
Picker panel items only show markers after a certain item height
Plugin windows can be tiny when loading project a second time

Control Surface: some fonts are scaled twice when opening saved settings

DirectWave: "Browse for folder" window focuses Windows Explorer when closed
DirectWave: zone grid isn't updated when deleting all zones from the list
DirectWave: "Rate" controls on LFO 1 and LFO 2 tabs are misaligned
Fruity Filter: resonance parameter hint is incorrect
Harmor: clicking on note transitions (64 bit)
HTML Notebook: crash loading a website that shows a message
Patcher: can't find Fruity Chorus in SeamlessR - Antecoder demo song
Wrapper: VST3 plugin parameters keep changing automatically after they're tweaked

12.5.1 Beta 1 (02/09/2017)

Changes
Added "Dropping to track header locks to content" option to the playlist
Browser recognizes plugin presets for more IL plugins
Converted to native FL plugins with 64 bit version: 7 Band EQ, Bass Boost, Center, Chorus, Compressor, Delay, Fast LP, Filter, Flanger, Free Filter, Mute 2, Phaser, Phase Inverter
Default to shared data folder when exporting a channel to a DW program file
Playlist clips can now have a solid color
Playlist will show indication of drop location and length when dragging clips to it
Samples can be added from the browser to the playlist with ctrl + middle click and ctrl + enter
Settings for project export to audio file and for pattern render are now saved separately

Dance: sprite sheet now has a higher resolution
DirectWave: default to shared data folder when saving a program or bank
DirectWave: added refresh button to browser
FPC: popup menu when you right-click on a pad
Formula Controller: added Atan2, Inter and InterNoSwap functions
ZGE Visualizer: option to set custom FPS for video export

Bugfixes
Access violation when the plugin picker is opened
Browser shows files in root of tree aligned to the right instead of left
Browser shows unnamed items at the bottom
Channel settings toolbar can't be opened after replacing a plugin with a sampler channel
Detect tempo in channel settings window detects wrong tempo when Trim knob is used
DWP export: incorrect hints on some controls
DWP export: invalid input values for loop start
First playlist track can be grouped with above
Notes are not recorded when recording stops while the notes are held
No warning when saving a project to a file without specifying the extension and the file (with the default file extension) already exists
Picker panel: crash selecting pattern with shift+click
Picker panel: selecting and deselecting patterns or clips doesn't always work
Picker panel: bug in clone function
Playlist tool shortcuts with Alt and Ctrl modifiers don't work reliably
Playlist track name becomes garbage text after dropping a file with a unicode filename
Plugin and project picker close too slowly when "Keep it sober" is selected for animations
Plugin Manager window can't be closed after a scan when the plugin info tab is selected
Projects are added to the recently used file list when rendering from the command line
Touch Keyboard window resizes erratically when docked
Touch keyboard glitches visually when switching between keyboard and pads
"Unlock all from content" macro collapses the first 33 tracks in the playlist

DirectWave: freezes when loading certain .NKI libraries
DirectWave: Alt+F doesn't work in sample editor
DirectWave: delay labels are incorrect
DirectWave: resizing and moving multiple selected zones doesn't work
DirectWave: incorrect filename when saving a program
DirectWave: copy and paste of numbers in the zone editor doesn't work

DirectWave: can't choose bit depth for samples created when saving a program
DirectWave: shows "missing sample" prompt when loading a zipped loop file
Directwave: 'Browse For Folder' window focuses Windows Explorer when closed
DirectWave: list index out of bounds error when clicking the zone list when there are no zones
HTML Notebook: improved storing file names and URLs
FPC: note names in piano roll are not updated when changed in plugin
FPC: no samples created on SFZ export
Harmor: state of the "Smooth mod" control is not remembered correctly
Harmor: missing inverted low cut faders for delay and reverb
Harmor: right-click on "Pitch articulator amount" changes the value instead of showing a popup menu
Newtone: Play button has incorrect image after Stop is clicked
Patcher: zeroing buffers takes too much cpu
Patcher: parameter connection animations no longer work
Patcher: multiple entries for FL plugins shown in "add plugin" menus
Sytrus: F3 doesn't show channel settings menu when the MAIN tab is selected
Transistor Bass: doesn't respond to notes with colors other than the first one
Wrapper: performance issues with VST3 plugins when automating parameters
Wrapper: Scratch Track plugin has fixed size buffers on by default
ZGE Visualizer: default file extension is not added to filename when no extension is present

12.5 (03/08/2017)

Changes
Master FX option is disabled when split mixer tracks is on
New "Auto name effect slots" option, separate from "Auto name channels'

Bugfixes
Abort of render can crash when restoring enabled mixer tracks
Access violation when rendering to a file that's in use by another application
Can't dock single row panels on both lines next to a double row panel on the bottom dock area
Command line rendering doesn't work
Deletion of pattern doesn't update channel rack properly
Pattern groups aren't loaded
Picker panel not always updated when adding a clip

DirectWave: crash copying zone properties to all zones
DirectWave: Library menu has each item in a submenu
Patcher: can't load new Fruity Balance from old settings

12.5 Release Candidate 3 (28/07/2017)

Changes
New option to remove background image from playlist

DirectWave: changed file dialogs to support favorites

Bugfixes
Clicking on piano roll timeline turns on recording precount
Half height option for touch keyboard doesn't work when no pads are selected
Infinite loop when rendering a pattern
Last note in piano roll is not selected by select all
Latency value can have two decimal places
Picker panel selection leaves out last item in list
Plugin picker focus rectangle is not drawn correctly in 64bit
Projects load slower than they used to
Quick rendered pattern names are not unique (duplicates are possible)

Delay 3: signal is stopped when clicking on the timeline
DirectWave: no warning message for Flush and Flush All commands

DirectWave: loading sample from sample editor doesn't work
DirectWave: error pasting sample into sample editor
DirectWave: "Library" popup menu is not organized
DirectWave: folders with unicode names are not visible in the library grid and popup menu
FL VSTi: settings are not loaded
Harmor: no lines visible in envelope images
Love Philter: freeze previewing patterns in picker panel
Plugin Manager: all plugins are marked as new on a fast scan
Plugin Manager: fast scan after verified scan creates duplicate entries
Wrapper: "Reset plugin when FL Studio resets" option is not saved

12.5 Release Candidate 2 (20/07/2017)

Changes
Diagnostics is now resizable
Touch keyboard now has its own entries in the "Receive notes from" list for channels

DirectWave: the default path for FLM export is now the "My instruments" folder in the FLM plugin folder

Bugfixes
Crash rearranging patterns in the picker panel
Dragging the mouse out of the pattern picker doesn't always stop preview
F1 doesn't open help file when touch keyboard is focused
Multiple channels are deleted when only one is selected
New plugins are not marked as new after a fast scan

DirectWave: no overwrite prompt when saving programs and banks
DirectWave: control automation is incorrect when changing programs
DirectWave: multi-bank output is saved to the wrong channel
DirectWave: channel VU meters don't always work
DirectWave: Save As doesn't always open a dialog window
FPC: initial paths of "open" dialog windows are not always correct
FPC: color and icon changes are not always updated immediately
FPC: export to FLM now writes a (monolithic) .dwp file
FPC: crash loading some presets
Parametric EQ 2 moves bands incorrectly when touch input is used
Patcher: MIDI events from plugins can get lost (notes are not played or continue playing indefinitely)

12.5 Release Candidate 1 (13/07/2017)

Changes
DWP export: the Normalize option is now on by default
FL Studio Mobile projects are now loaded into the FL Studio Mobile plugin
ZGE Visualizer: four new effects from StevenM (Grid, ImageSphereWarp, Luminosity and ScanLines)
Ctrl+L now assigns a channel to an unused mixer track, when the channel rack is focused

DirectWave: it's now possible to save monolithic .dwp files
DirectWave: "Export for FL Studio Mobile" option saves monolithic .dwp file
DirectWave: loading a monolithic .dwp file now also sets the monolithic option
Control Surface: new "Label" control type
ZGE Visualizer: new effect from StevenM: Edge Detect

Bugfixes
Abort project doesn't work when project is loaded from the browser or dropped on FL
Automatically created audio clips have audio that's out of sync
Dragging a .dwp file to the channel rack creates a channel called "DirectWaveTrack"
Dropping plugin preset on effect slot with same plugin loaded doesn't reset slot name
DWP export: root note not saved in exported samples
DWP export: octaves after the last zone are labelled incorrectly on the preview keyboard

DWP export: zones for the last key range are sometimes empty
Files in FL search paths take precedence over files in zipped loop
Focusing a channel creates a pitch knob range undo event
Free mixer track assignment doesn't work for some detached plugin windows
Initialized controller values are not loaded correctly for projects with old Fruity Balance plugins
"Unlock all playlist tracks from content" macro doesn't set size of grouped tracks
No undo when dropping a pattern from the picker panel on the playlist
Preview notes do not cut themselves
Scroll in picker panel is too fast while previewing items
Sort by name on pattern picker panel results in strangely named patterns in the browser
Stretching audio in the playlist changes the clip unexpectedly when the time stretch multiplier is used
Toolbar is too wide at low screen resolution
Touch keyboard doesn't center on root note when key width changes

Control Surface: button and checkbox controls don't show up as internal controllers
Control Surface: labels disappear behind controls and other z-order issues
Control Surface: button and checkbox caption font height is not scaled correctly
Control Surface: reset via middle click doesn't work when minimum and maximum values have changed
Control Surface: bevel doesn't remember name
Control Surface: strange colors using the Rounded Gradient Rectangle preset
Dashboard: some controls exported to text are scaled incorrectly
DirectWave: missing indicator for played key and velocity
DirectWave: invalid loop end after import of soundfont
DirectWave: edit control remembers the range of the previously edited item
DirectWave: trigger type label not updated when a trigger group is selected
DirectWave: LFO waveforms are broken
DirectWave: zone name color in zone list is incorrect if there is only one zone
DirectWave: no longer imports soundfont files
DirectWave: edit box doesn't hide when zone list is scrolled
DirectWave: no zone preview rectangle in some situations
DirectWave: UI not updated when sample is dropped
FPC: pads in bank B don't light up in dual bank view
FPC: can't drop samples on pads for bank B in dual bank view
Fruity Balance: automation and control links from old version aren't converted correctly
Fruity Delay 3: crash on knob automation
Fruity Multiband Compressor: crackles and volume bumps with multiple instances inside Patcher
Fruity Reeverb 2: ringing with some settings
Fruity Slicer: crash on load (64 bit)
MIDI Out: incorrect channel when using "Map note color to MIDI channel"
Patcher: crash when replacing Patcher with another Patcher
Patcher: crash loading Patcher preset into existing Patcher while holding the shift key
Plugin Manager: "Verify" option is always on when the program is opened from FL
Plugin Manager: scan doesn't update file date and time for plugins found in earlier scans
Plugin Manager: some plugins are named incorrectly after a scan
Plugin Manager: scanning FL plugins is slow
Transistor Bass: freeze when loading from the Installed section of the plugin database
Transistor Bass: doesn't respond to channel volume when changing preset

12.5 public beta 3 (28/06/2017)

Featured changes
New: Fruity Delay 3 plugin
Updated: Fruity Balance is now a native FL plugin instead of a VST

Changes
Disabled all formats other than .wav for quick pattern render
New macros: "Lock all playlist tracks to content" and "Unlock all playlist tracks from content"
New option to copy color from one color button to another for name dialogs that create color gradients
Render window has new options to enable or disable effects while rendering

Split children option on layer channels can now be reset easily
The mixer's default view is now "Wide"

Control Creator: drag control preset to Control Surface
Control Surface: checkbox and panel controls
Control Surface: horizontal mode for sliders
Control Surface: option to set minimum and maximum values for controls
Control Surface: option to set font height
Edison: markers are now added at the play position
Harmor: small changes to the plugin UI

Bugfixes
Automation clips in picker panel don't update automatically when the user makes changes
Clicks in recorded audio
Ctrl+A doesn't follow the PL snap setting
Coloring and renaming pattern clips doesn't updated unselected clips in picker panel
"Current" mixer track doesn't stay docked to the middle dock site
Deleting the last pattern scrolls to the middle of the picker pattern list
Effect slot name changes when a generator preset is loaded into a mixer track
Empty pattern and channel groups aren't removed automatically
Erratic behaviour moving selected audio clips in picker panel
Error when right-clicking a picker panel item while the channel rack was detached and hidden
Exception when moving multiple audio clips in the picker panel
Items in picker panel can't be previewed by holding shift and moving the mouse over them one by one
Mini PL preview time indicator flickers
Mixer effects are not re-enabled after DWP export
Mouse wheel doesn't always work on picker panel when that is under the mouse cursor
Pattern render uses automation values from last song position
Pattern render cuts off early when the "Leave remainder" option is on
Picker panel items are kept in view when moving them
Pressing F2 after selecting an audio clip renames a random pattern
Scaling and other graphical issues in picker panel
Some keyboard shortcut alternatives (with typing keyboard on) don't work in the PL and PR (e.g. shift+B)
Smart find doesn't work in the "Current" tab of the browser
Time indicator in mini PR view is sometimes off
Various sorting issues in picker panel

Control Creator: control presets are saved with incorrectly scaled values
Control Surface: toggling editing mode re-orders controls
Control Surface: error message when setting a button's font color
Control Surface: the + button appears twice after it's been used once
DirectWave: editing samples can cause clicks during playback
DirectWave: envelope faders don't have a rail color
DirectWave: switch program option has incorrect value range
Harmor: strange behaviour of knobs in ADV tab when they're clicked
Maximus: scaling problems with some text
Newtone: crash when saving a sample
Patcher: error loading ZGE Visualizer preset
Patcher: under some circumstances, threaded modules are not processed

12.5 public beta 2 (30/05/2017)

Changes
"Add speech" option in add channel menu
New demo project: Synth_dfr - Overcome - Sytrus
Touch keyboard scrolling direction reversed to make it more natural when used by touch
Changes to auto-generated export filenames

DirectWave: improved unicode filename support

DirectWave: renamed "Total recall" to "Monolithic mode"
DirectWave: monolithic mode is now per instance
FL Studio Mobile: updated to version 3.1.52

Bugfixes
Access violation using shift + mouse wheel on patterns in picker panel
Add generator button replaces instead of adding + other strange behaviour replacing channels
Broken settings panel on touch keyboard if they're opened while the keyboard is still scrolling
Can't select icon when renaming an audio clip from the picker panel
Crash clicking on mini plugin list in mixer
Dragging pattern and clip up or down the picker panel doesn't scroll when necessary
Export to DWP options are inverted (for example: bypass effects)
Export to DWP has clicks in audio
Export to DWP exports only part of the audio in monolithic mode
Export to DWP leads to inconsistency between sample filenames and velocity layer limits
Fixes to deleting a pattern
Leave remainder cuts earlier than it should
Loading a mixer track preset in the Current track sets options that are not available on that track
Loop recording with precount cuts previously recorded notes
Mixer track effects can not be disabled on pattern render
No shared data folder in browser after fresh install
Pattern rename dialog has no title and no effect in some circumstances
Pattern title changes color when zooming in picker panel
Picker panel doesn't update after changing channel or pattern color
Picker panel becomes wider after changing width and scrolling
Potential color conflicts in picker panel
Rearranging patterns in picker panel does not always show the drop position
Render pattern as audio clip creates empty clip
Sample preview stops when playback loops
Save dialog doesn't use typed file extension properly
Scrolling issues in picker panel
Selecting a group in the channel rack doesn't select it on the audio / auto clip tabs of the picker panel
Slow response in touch keyboard pads
Text in project picker popups can be difficult to see
Typing keyboard to piano and other keys don't work when touch keyboard is focused
Wrong data used when selecting a channel
Zoom of picker panel is not remembered between instances

Beepmap: bitmap isn't scaled
Control Creator: DPI scaling issues
Control Surface: control resizing is erratic
DirectWave: global zone editing initially has no effect even though it seems active
DirectWave: no popup for ADSR sliders
DirectWave: some options do the wrong thing
DirectWave: alignment of some popup menus
DirectWave: start region
DirectWave: zones "slide" down when clicked on (with multiple velocity layers)
DirectWave: program volume knob has incorrect initial value
Edison: playback stops when adding a marker
FPC: custom color is not reset when changing presets
FPC: middle-click on pad should open rename/color/icon window
Harmor: Prism mode doesn't work
Patcher: noise on right channel after pattern render

12.5 public beta 1 (18/05/2017)

Featured changes
New: clip "picker panel" in playlist
New: "touch keyboard" window
New: export a channel to a DirectWave preset (right-click the channel button)

FPC: new look
Patcher: threaded processing of modules
Vectorized UI: DirectWave and Harmor

Other additions and changes
Added "Hide plugin window toolbar by default" option to General settings
Added simple color option for the FL background
Added hi-hat icon
Changed NewStuff to Tevlo - Release Me (Feat. VEELA)
Improvements to aborting loading a project
Improved project loading time
Mixer: compact plugin list on by default
Mixer: right-click on (empty) compact plugin list to add plugin
Mixer: playback tracking is now set to "Mixer" by default
Mouse wheel now works on the channel selector in the event editor window
Ogg-encoded wave files are now loaded without the Vorbis ACM codec
Option to close all plugin windows in View menu
Piano roll: mini overview in horizontal scrollbar
Piano roll: Highlight root key according to scale
Piano roll: new "Dark" keyboard view mode
Piano roll: ctrl + mouse wheel on channel selector selects empty ones as well
Playlist: automation clip node popups now have "Type value" entry
Playlist: mini overview in horizontal scrollbar
Preset selector on plugin windows now shows preset name
Toolbars are now locked by default
"Transparent windows" option to enable or disable transparency for inactive windows
Vibrator plugin removed from installer (available from the Knowledgebase on the website)

Control Creator: improved look, functionality and integration
Control Surface: options to align controls
Edison: show selection length
FL Studio VSTi: editor window is now scaled
FPC: per pad automatable pitch wheel
FPC: pads are color coded to indicate if they're empty or not
FPC: pads can have custom color and icon
Love Filter: added option to ignore note input
MIDI Out: new "Note" controller type to automate sending note on and off
Patcher: added More... option in plugin insertion menus
Patcher: select other node to connect to when inserting plugin to node
Patcher: load DW when dwp file is dropped
Patcher: middle-click plugin title bar to rename
Patcher: middle-click connection filter checkboxes to disable the two others
Patcher: options to align modules
Patcher: "tree display" option in Control Surface tab preset menu
Plugin Manager: it's now possible to change the type of a verified plugin
Plugin Manager: removed "verify shell plugins" option
Plugin Manager: Waves plugins are always combined (VST3 + VST2) when verified
Sytrus: popup menu for Send selector
Wrapper: option to not reset plugin when FL asks plugin to reset

Bugfixes
Access violation when switching a pattern while recording audio
Close and open popups in browser, playlist headers and clips with single right-click
Crash using Windows shell menu option
Default value for the maximum undo level is 20 instead of 100
Main menu bar submenu obscures main menu itself
New project doesn't reset PL position and selected clip
Plugin Database tab is selected when the Auto snapshot is active and the channel rack is focused
Using up and down keys doesn't work well when the plugin picker is filtered
Start from current position when Wait for Input is on
Timers not released

Typing unicode characters doesn't work in some cases

Big Clock: doesn't follow time when using Start marker
Channel rack: steps showing after render of mixer tracks, when PR view is on
Control Creator: visual glitches
Control Creator: freeze when setting cap style to LEDRing
Control Surface: resize controls from the top left instead of the middle
DirectWave: access violation loading a program created from a Soundfont file
DirectWave: can't type into layer velocity controls in some circumstances
FPC: "Save entire kit as pad presets" window doesn't show destination folders
FPC: can't open sample in editor
MIDI Out: note color leads to incorrect channel
MIDI Out: wrong parameter name
Mixer: moving multiple selected sliders down and back up loses the relative values
Newtone: kernel error in Windows XP
Patcher: new plugin windows appear in unsuitable locations
Patcher: can't add plugins to nested Patcher instance
Patcher: crash when deactivating all parameter outputs on the FL input
Patcher: improvements to dropping plugins on connections
Patcher: .fst preset files not shown in preset selector
Patcher: selecting modules with shift and control keys doesn't work
Patcher: wrapped plugin window size doesn't change when opening options editor
Patcher: plugin window title bar icons in wrong order
Patcher: removed voice input from "From FL Studio" module in effect version
Patcher: plugin windows show up on wrong screen
Patcher: last tweaked parameter set on controller change
Patcher: failure to load plugins while loading a project
Plugin Manager: various improvements to plugin detection
Razer Chroma: problems detecting new devices
Slicex, Sytrus: discrepancies showing and hiding the piano keyboard
Sytrus: OSC tab UI issue after resizing
Transient Processor: audible artifacts when mix level is below 100%
Vocodex: envelope follower gets stuck

12.4.2 build 33 (03/04/2017)

Bugfixes
Blank export when "Wait for input" is enabled
Crash loading Pitch Shifter plugin
Crash rendering mixer tracks
Demo plugins not deleted when loading song
Template doesn't load when .fst file is loaded from command line
Beepmap: distortion when "Grainy" option is on (64 bit)
FL Keys: doesn't load preset
Fruity Bass Boost: doesn't initialize properly
Wrapper: automation links are lost when bridging a plugin

12.4.2 build 32 (14/03/2017)

Additions and Changes
Tempo Tapper mute option is now off by default

Bugfixes
Audio clip erased on playback after when rendered from mixer track
Auto name channels off still changes channel name when selecting presets
Auto name effects off causes effect slots to get no name when loading a song
Incorrect hints for interpolation menu entries in render window
Memory use increases when rendering mixer tracks
Recorded audio clip plays after it should end
Tempo Tapper has wrong help file page

12.4.2 RC2 **Additions and changes**

(01/03/2017) Added Control Creator to FL Tools menu and Control Surface popup menu

Bugfixes
Channel color doesn't change after selection
Garbage text in MIDI output list
Incorrect plugin thumbnails
Incorrect behaviour in function to detect silence
Control Surface: have to click multiple times to reopen popup
FL Mobile: updated to latest version
FL VSTi: access violation on exit in Ableton Live
Ogun: invalid window handle error loading preset

12.4.2 RC1
(24/02/2017)

Additions and changes
Can now use Ctrl+C to copy text from FL warning and error messages
Saving and loading projects is now buffered (potentially faster)
Show progress while saving project
Tree view option for favorite plugin menus
Patcher: added plugin favorites menu back
Razer Chroma: support for Ornata Chroma
ZGE Visualizer: new effect (scenes\RhodiumLiquidCarbon)

Bugfixes
Audio tail cutoff during playback loop
'Auto create clip' causes empty audio clip channel when disabled
Data corruption initializing mixer track map
Deleting channel above playing channel messes up performance playback
Effect slot mute/solo button position is wrong
Error creating .ZIP file because of unicode characters in sample filename
Error recording multiple mixer inserts into the PL with a Channel Rack filter selected
Failure to load VST plugins
Freeze adding step while playing
Graphical problem dragging files with Fruity Dance loaded
Help file crashes program
Hyphen at start of pattern name causes it to appear as a separator in menus
Incorrect filename if .ZIP is selected when saving a project
Loop recorded clip added to start of loop when triggered at different position
Maximize to all monitors doesn't use all monitors
Menus flicker when showing submenus
Merge similar patterns doesn't work in 64bit
Mixer menu popup position works better
News downloader prevents FL to start
Note triggered from computer keyboard keeps playing when root note is changed
Open and save dialogs updated in various places
Playback tool doesn't stop clip when starting another one
Plugin chosen in Plugin picker replaces Patcher channel
Progress meter flickers during .ZIP file operations
QuickFontCache prevents FL to start
Recorded audio is placed randomly in PL
Riff Machine accept button is cut off
Sample preview doesn't work
Sampletank 2 plugin requires admin mode
Slip tool creates gaps between clips
Tempo undo creates additional undo item
Toolbar menus popup below toolbar even when toolbar is at bottom
Uninstalling FL ReWire doesn't work
Voice count increases when looping
Autogun: keyboard only responds partly when scaled
Beepmap: crash loading a wide image and scrolling it
Control Creator: crash setting smooth knob style to zero

Dashboard: crash changing presets
Dashboard: scaling improvements
DirectWave: crash opening .SF2 file
FPC: error when clicking on unused pads after .DWP import
Fruity Bass Boost: doesn't load in 32 bit
Fruity Limiter: ceiling value crash
Fruity X-Y-Z Controller: memory leak
Harmor: memory leak
Newtone: stuck warp mode icons
Patcher: stuck notes
Plugin Manager: Waves plugins lose individual names after rescan
Spectroman: uses incorrect font file
Sytrus: doesn't update some knobs when loading presets
Sytrus: X-Y knobs snap at center values
Vocodex: 'Freeze Envelope' can't be automated
Wrapper: Melodyne VST3 doesn't resize
Wrapper: sends key commands to plugin when editor is closed
Wrapper: VST3 program change problems
ZGE Visualizer: can't open .GIF files
ZGE Visualizer: progress window disappears when exporting video
ZGE Visualizer: problem with FrameBlur effect

12.4.1
(15/12/2016)

Additions and changes
Transistor Bass: warning message when selecting "Clear"

Bugfixes
Crash clicking on channel rack filter combo
DirectWave: crash after sampling VST (64 bit)
FPC: crash importing DW program (64 bit)
Patcher: crash when deleted
Patcher: note off messages not always sent to plugins

12.4.1 RC1
(08/12/2016)

Additions and changes
FPC can save and load pad presets again
Keyboard focus button on title bar for Slicex, Convolver and VST plugins
"Reset plugins on transport" is now off by default
New "Focus selected channel on playback" in channel rack
Transistor Bass: click and drag to draw notes/accents/slides/...
Transistor Bass: rotate notes with shift + ctrl + arrows
Wave Traveller is now thread safe
Wrapper keyboard focus is now on by default
ZGE Visualizer: added audio rate selector in export options

Bugfixes
Access violation recording multiple mixer inserts to PL
Active voices increase while playing loop
AIFF file with reverse byte order fails to load
Automation recording in PL doesn't record when area is selected
Auto unarm doesn't work when rendering mixer tracks
Channel rack scrolls up when play button is pushed
Clip continues playback after releasing playback tool
Freeze on startup when samplerate is reset by the audio device
Maschine Jam: 8th column incorrectly stops clip
Menu and picker fadeout leaves visible box in Windows 7
Menus show up on wrong screen
Merge pattern clips isn't undoable
Overlapping audio clip plays twice
Rendering mixer tracks doesn't put them in project folder
Rendering mixer tracks uses incorrect filenames

Username not shown in FL title bar
Bass Boost: doesn't load in 32 bit
Beepmap: only outputs on right channel
Beepmap: sound is different than in old versions
Dashboard: spin controls aren't scaled properly
Dashboard: spin control move speed is reset on import from text file
DirectWave: loop points for ogg encoded waves aren't read
Formula Controller: used variables are greyed out
Gross Beat: missing knobs in Create Sequence tool window
Gross Beat: step buttons in "Create sequence" tool don't draw all states correctly
Newtone: variation control is inverted
Parametric EQ 2: band selection is wrong
Parametric EQ 2: maximize button missing
Patcher: crash replacing Patcher with preset from plugin inside that Patcher instance
Patcher: no preset selector for Dashboard
Patcher: crash cycling through plugin presets
Patcher: double-click on Control Surface module doesn't open its editor tab
Patcher: notes from MIDI Out cut in DirectWave
Plugin Manager: doesn't save state of "Verify" checkbox
Razer Chroma: causes audio breakups in 32bit
Slicex: no undo popup menu on deck B
Slicex: access violation in 64bit using "Layer selections in both decks"
Sytrus: operator volume knob is not bipolar
Sytrus: won't always retrieve output buffer
Transient Processor: output muted after adjusting parameters
Transistor Bass: pan control is inverted
Wave Candy: visual glitch in meter mode
Wave Candy: OSD window doesn't scale properly
Wave Traveller: helper lines aren't shown
Wrapper: Melodo crashes when bridged
Wrapper: further fix for hidden VST3 plugins to respond to automation
Wrapper: Tls Pocket Limiter crashes when bridged
Wrapper: Fabfilter plugins have wrong size window when scaled
Wrapper: freeze with bridged SynthEdit-made plugin during keyboard input
Wrapper: negative mixer track offset outputs to track 103
Wrapper: Waves IDR360 VST3 crashes during processing
ZGE Visualizer: error using Peak Effects > Polar on empty layer
ZGE Visualizer: video export problems

12.4
(04/11/2016)

Additions and changes
Added FL Studio Mobile plugin
Rotate left/right in channel rack no longer opens the piano roll
Newtone: added buttons for pitch and warp modes
Razer Chrome: support for Naga Chroma mouse
Visualizer: now supports h264 video export (mp4) and FLAC audio
Visualizer: two new effects in new "Internal controllers" effect category
Visualizer: custom layer names are now used for parameter names
Visualizer: drag/drop to rearrange layers
Visualizer: support "side by side full" and "side by side half stereoscopic" modes

Bugfixes
Crash when a plugin stretches samples
Plugin window positions are incorrect when loading project at different PPI
Stretch mode causes sample to be played at root pitch
FPC: doesn't remember full size when editor is collapsed
Newtone: crash when a sample is dragged to the plugin (x64)
Newtone: sample doesn't load
Panomatic: dB hint inaccuracy
Patcher: fixed crash when module window is open and Patcher window isn't

Transistor Bass: sequence changes when clicking above the area
Visualizer: using 10k lines as html doesn't reload correctly
Visualizer: internal controller knob settings are not persisted
Wrapper: fixed sending VST3 automation to UI when editor is hidden

12.3.1 (boxed) (21/10/2016)

Additions and changes
Don't snap recorded audio when snap is set to "Line"
Removed "while you're rendering" panel from render window

Bugfixes
No channel created after recording when "Auto create audio clips" is off
New channel has step sequencer view instead of mini PR view after recording
Taskbar remains hidden when FL is full screen and then minimized
Harmless: hz/osc selectors have no effect
Panomatic: dB hint inaccurate
Plugin Manager: "always on top" causes problems during plugin scan
Sytrus: alignment of FM tab and matrix is off
Wrapper: fixed some crashes when changing fixed size buffers settings

12.3.1 RC 3 (11/10/2016)

Additions and changes
Maschine JAM support: added undo/redo, step seq mode and swing jogwheel mode

Bugfixes
Crash when browser is moved to the left of the workspace
Crash when Plugin Picker is opened immediately after loading a project
Mixer track not selected when changing channel destination with "Type in value"
DrumSynth Live: scaling issues
Wrapper: freeze changing latency in Meldaproduction plugins

12.3.1 RC 2 (07/10/2016)

Additions and changes
Native Instruments Maschine JAM controller support
New command line options to bulk render audio and convert .fsc to MIDI
Patcher: 37 new presets by Youlean
Transistor Bass: popup menus for bank and pattern selectors
Wrapper: added button to refresh inputs and outputs after a change in the plugin
Wrapper: threaded processing is now on by default
ZGE Visualizer now publishes internal controllers
ZGE Visualizer can now use various FL windows as textures (experimental!)
ZGE Visualizer: 4 new presets

Bugfixes
Continuous scrolling breaks performance mode
Event playback bug when relocating song position
No undo on automation clip paste
No undo for "Type in value"
Realtime stretch time mul not applied when time is zero
Recording to playlist adds step sequencer channel even in PR mode
Right-click on "Save as" button doesn't default to .wv file extension
Song position can go off screen when zoomed into PR with continuous scrolling
Control Creator: most demo knobs are invisible
Edison / Convolver / Slicex: can drag empty sample to playlist
EQUO: glitch with hidden settings
Beepmap: crash when moving other windows over Beepmap window
DrumSynth Live: audio sent to incorrect tracks
DrumSynth Live: notes aren't cut properly
FPC: UI is a mess at 125% scaling
Maximus and Fruity Limiter: initial latency isn't reported
Parametric EQ2: crash when resizing

Patcher: crash when saving
Patcher: stack overflow error minimizing and restoring DirectWave window
Sytrus: middle-mouse zoom on OSC scrollbar doesn't work well
Sytrus: hot zone to edit harmonic is wrong
Transistor Bass: auto-follow doesn't work
Transistor Bass: "Type in value" is broken
Transistor Bass: crash loading some demo projects
Transistor Bass: note names don't update when loading a preset
Vocodex: visual artifacts in env editor when scaled
Vocodex: error closing plugin
Wave Candy: crash with extreme audio data
Wrapper: Waves plugins crash on close
ZGE Visualizer: wallpaper doesn't show when plugin is hidden on project load
ZGE Visualizer: critical error when changing presets

12.3.1 RC 1
(23/09/2016)

Additions and changes
Right-click on render toolbar button to render to MP3 instead of WAV
Fruity Slicer: removed "Open in BeatSlicer" option
Default bit rate for MP3 and OGG export set to 192Kbps
Newtone: option to include regions when saving a sample in pitch correction mode

Bugfixes
Audio clips aren't updated when the channel's sample changes
Automation clips play section after loop point
Chinese characters not shown correctly
Crash creating a new pattern after audio recording
Freeze adding step during playback
Markers from WavPack files aren't loaded
MIDI notes won't go past loop recording's end point
Mixer window moves in front of plugins after Plugin Picker but doesn't have focus
Missing text and glyphs in FL and plugins because of incorrect font
New plugin channel name set to "Sampler" when "Auto name channels" is off
REX files sometimes don't load
Slowness dragging preset from Plugin Picker
Strange behaviour for detached windows on multi monitor setups with different DPI
Unicode characters in track name cause error creating the recorded wave file
Various issues related to "Host priority for keystrokes" Wrapper option
Control Surface: knob presets don't have pause marker when they should
Convolver, Edison & Slicex: use friendlier filename for untitled samples
Convolver, Edison & Slicex: empty samples can be dragged to playlist
DirectWave: crash loading .instr file
Fruity Send: adjusting and resetting "Send to" causes louder audio
Fruity Slicer: "Open in Edison" option doesn't work
Slicex: right-click on save as button doesn't use .wv file extension
Wrapper: incorrect display for sliders in interfaceless plugins (64 bit)
Wrapper: Serum crashes when loaded
ZGE Visualizer: crash when changing presets

12.3.1 beta 2
(16/09/2016)

Additions and changes
Added .instr as recognized file extension in the sample browser
There's now a warning when loading a project with an invalid audio output selected
Changes to contrasting text colors in channel rack, mixer and playlist
List view mode in piano roll is now less confusing
Renamed "saved arrangement" to "custom"
Custom layout is now remembered even when selecting other layout
Added new recording quantize options (right-click the Record button)
Improved overall audio loop recording performance

Bugfixes
Crash making plugin thumbnail
Detached windows resize incorrectly on differently scaled screen
Escape key doesn't close VST window when "host priority" wrapper option is on
Freeze when adding step during high cpu load
Loop recording:
- Audio dropouts when looping back to start point during audio loop recording
- Audio recording sometimes being shifted from the loop's start point
- Audio recording sometimes not taking correctly latency into account
- Automations being shifted in the pattern in some cases
- Downbeat not being played at the next loop right after recording
- MIDI notes sometimes being quantized to a very short length
- MIDI notes being cut off when changing channel rack selection while recording
- Missed downbeat during midi loop recording
- Precount not ignoring notes in some cases
- Recorded midi notes sometimes being shifted in the pattern

No sound when insertion of playlist track has failed
Piano roll zoom changes when hiding and showing the window
Boobass: crash playing notes (64 bit)
Convolver: undo button has popup menu on left click instead of right click
Drum Synth Live: crash playing notes (64 bit)
Gross Beat: per-tab reset button in Create Sequence tool resets all tabs
Love Philter: doesn't remember size of hidden part of UI
Parametric EQ2: band types and orders change too quickly
Patcher: VFX plugins crash when playing notes (64 bit)
Slicex: missing hints for some knobs
Wrapper: text shown behind small plugin editors

12.3.1 beta 1
(09/09/2016)

Additions and changes:
Added Transistor Bass plugin
Vectorized UI: FPC, Harmless, Ogun, Parametric EQ 2, SimSynth, Slicex, Vocodex
Custom mapping formulas for controller links
Browser: restored option to open samples in Fruity Slicer
New "Alternative mixer highlighting" option to work with very bright or dark colors
Dashboard can now be resized from the window border
"Optimize for" now always defaults to multi-button mouse on install
Plugin Manager: window can now be set to remain on top of other windows
Improved support for command-line rendering
Improvements to loop recording

Bugfixes:
64bit related crashes in:
- Boobass
- DirectWave
- FL Slayer
- Fruity Scratcher
- Patcher
- Soundgoodizer
- VFX Key Mapper
- VFX Keyboard Splitter
- Wave Traveller

+ label in color menu isn't scaled
"Arrange windows into workspace" problem with certain monitor layouts
"Auto select linked modules" doesn't work on playlist audio clips
Black rectangle when selecting item from menu
Channel names inconsistent when Auto name channels is off
Channel rack doesn't resize properly when FL is started
Corrupted audio when rendering

Crash closing MIDI devices (64 bit)
Crash using "Open shell menu" in browser (64 bit)
Drop Patcher on channel without holding shift doesn't replace the existing plugin
Empty filename can be added to sample history in channel settings
File save dialog doesn't add default file extension when necessary
Generic links for mixer track controls only work when plugin in first slot is focused
Hyphen at start of automation clip name makes it unselectable
Incremental scrolling doesn't work with small scrollbars
Incorrect alignment of mute/solo buttons in mixer plugin slots
"Invalid midi out handle" error (64 bit)
Multiple selected mixer tracks can only be renamed and colored once
Noise when loop recording
Ogg Vorbis codec crashes (64 bit)
Peaks in mixer's Current track are not aligned properly in Extra Wide mode
"Remove sample" in channel settings doesn't work
Selecting a different channel while recording will mute voices
"Type in value" doesn't work for interfaceless VST plugins
Wavpack files don't load (64 bit)
BooBass: high cpu usage when multithreaded
Control Surface: color picker is transparent
Dashboard: scaling problems
Dashboard: font name garbage when exporting to text
Dashboard: font size saved with more precision
EQUO: responds to clicks below graph area
Fruity Slicer: stretch options are not correct
Fruity Vibrator: crash on close (64 bit)
Gross Beat: scratch wheel doesn't hide in some cases
Maximus: missing compression indicator switch
Patcher: window closes when selected from Plugin Picker
Patcher: doesn't show message when hybrid plugin is loaded
Plugin Manager: some shell plugins detected as effect instead of generator
Plugin Manager: plugin list scrolls too fast
Plugin Manager: some VST3 plugins fail to scan
Plugin Manager: doesn't show vendor name for FL plugins
Plugin Manager: doesn't show plugin list
Plugin Manager: deletes directory junction when favorite is deselected
Plugin Manager: shows effect and generator favorite of plugins with same name
Plugin Picker: fades out when "don't distract me" is selected
Plugin Picker: black window when fading out and desktop composition is disabled
Razer Chroma: doesn't work when window is hidden or minimized
Sytrus: doesn't save the state of the preview keyboard
Sytrus: OSC harmonics hidden when zooming
Sytrus: OSC harmonic editor extends below the scroll bar
Sytrus: missing Inactive feedback when operator is in Pluck mode
Wrapper: VST3 plugins don't load
Wrapper: BreakTweaker crashes when loading project
Wrapper: drop preset for VST plugin on that plugin doesn't change its settings
Wrapper: FL doesn't receive keystrokes when plugin UI is focused
Wrapper: can't replace one Waves plugins with another
ZGE Visualizer: doesn't load in Patcher

12.3 (02/08/2016)

Additions and changes:

Convolver now has a vector GUI
Razer Chroma: support for Naga Epic Chroma, Diamondback Chroma
Razer Chroma: updated metronome effect for Orb Weaver
New NewStuff demo: nucleon - Transient Processor
New demo project: Ephixa - Club Penguin
Four new demo projects for ZGE Visualizer
Three new Wiselabs Patcher presets, others updated
Transient Processor: no more nag silence in demo mode

Video Player: new "Delay playback by" option
ZGE Visualizer: updated MIDI effects
"Save acidized" render option is now disabled by default
New option to disable menu transparency
New menu item to load previously saved window arrangement while FL is running

Bugfixes:
Access violation when normalizing large audio files
Alt+B doesn't toggle scale highlighting on and off
Black notes not highlighted correctly
Crash dragging MIDI from Kontakt 5 to FL
Dragging (none) preset from picker to channel or mixer creates new preset
Dragging (none) preset from picker to channel doesn't rename it
Full screen mode not remembered when restarting FL
Incremental scrolling doesn't always work
Missing plugin dialog not shown
Mute audio clip doesn't take effect immediately during playback
Recorded loop doesn't show up when loop recording
Right-click on bottom panel of piano roll doesn't work
Underruns and high cpu usage when opening popup menus and plugin picker
Wrong channel name when "auto name channels" is disabled
Dashboard: font import from old projects is wrong
EQUO: font size wrong when scaled
HTML Notebook: doesn't find html file saved in project
Love Philter: orange ring around led controls
Maximus: font size wrong when scaled
Maximus: crash moving mouse over editor window
Plugin Manager: FL VST path is added to search path list for every installed FL
Razer Chroma: various fixes
Sytrus: crash on load because of invalid settings
Transient Processor: various fixes
Wrapper: bar start position reported to plugins is not updated every bar
Wrapper: Nave VST3 crashes when user changes waveform
Wrapper: Sforzando opens as 32bit plugin in FL 64bit
ZGE Visualizer: various fixes

12.3 beta 5
(28/06/2016)

Additions and changes:
Parametric EQ 2: added key selection for nodes
New option to disengage the record button when recording stops
Removed automatic "envelope" and "LFO" text on clips
Improvements to "Align all channel editors" option
IL Remote feedback is now always on
New option to move all windows to visible positions
Transient Processor: no more silence in demo mode

Bugfixes:
Auto-unarm displays unarmed tracks as still armed
Can't favorite some VST3 plugins
Channel rack: automatic resizing problems
Error selecting multiple samples in open dialog
Import of old tempo automation isn't always correct
Loop recording doesn't mute recorded clips
Love Philter steals note messages for devices locked to channels
Multi-threaded processing off after FL installation
Piano roll: slide and poly disappear sometimes
Piano roll: automatic key style changes are saved over user chosen one
Play truncated notes not active until disabled and re-enabled
Recorded loop doesn't show up in some cases
State of mute and sync checkboxes in tempo tapper isn't remembered
Time hint always shown when scroll lock is on

Delay Bank: orange ring around checkboxes
FPC: ghost image on GUI
Granulizer: custom channel name lost on song reload
Maximus: crash with multiple instances
Patcher: controls don't respond to controller input when tweaked with mouse
Razer Chroma: various bugs
Sytrus: info text for Gasmotron preset has X and Y reversed
Sytrus: wrong labels on chorus panel
Transient Processor, EQUO, Maximus: font scaling issues
Wrapper: fix for lost connection in plugin bridge is not always on
Wrapper: crashes when parameters in bridged plugins are automated

12.3 beta 4
(31/05/2016)

Additions and changes:
ZGE Visualizer version 2.0
New Transient Processor plugin
Changed name of "None" scale highlight mode to "Default"
Remember the "custom" size of channel rack buttons when selecting a preset size
Fruity Limiter: don't animate knobs when switching tabs and animations are off
FL ReWire: application window is now scaled
Razer Chroma: 4 new color presets
Razer Chroma: support for latest Blade laptop
New and updated presets for VFX Key Mapper, Convolver and Patcher
New Razer Chroma demo project

Bugfixes:
Alt+B doesn't toggle scale highlighting on and off
Assign free mixer track skips first insert
Auto name option doesn't do anything when using plugin window preset buttons
Crash dragging plugin preset from Patcher to its own channel or effect slot
Clicking on lower part of "Current" track's dB meter doesn't select the track
Channel rack gradient coloring doesn't work in 64bit
Channel rack too high with maximum height resizing on
Event data lost when swapping effect slots
FL window's "normal" size is too big initially on scaled displays
Gross Beat window doesn't maximize when double-clicking its caption
Mixer track color wrong after use of "assign channel to empty mixer track"
Piano roll and event editor don't load state of "incremental scrolling" option
Piano roll visible but not usable after events have been turned into automation clip
"Play truncated notes" option is active when it's off
Toggling effect windows switches inserts when mixer is detached
Edison: doesn't use correct file type when omitting file extension
Control Creator: freeze when using extreme cog size for knobs
Razer Chroma: fixes for Stealth laptop support
Stereo Enhance: wrong hint on separation knob
Wasp XT: velocity filter and velocity amp controls are switched
Wrapper: Waldorf Nave plugin crashes on load
Wrapper: can't load VST plugins from some old presets
Wrapper: disconnected message when disabling bridge
X-Y Controller: joystick support is disabled

12.3 beta 3
(12/05/2016)

Additions and changes:
Razer Chroma plugin
The names of existing channels aren't changed when dropping presets on them and the "Auto name" option is off
"Type in value" for tempo and mixer track selectors now accepts actual values
Fruity Limiter: comp/limiter selector is now two tabs instead
Renamed mono brush to "Paint"
Renamed poly brush to "Paint in drum sequencer mode"
Reverted "Paint" brush functionality to FL10's (FL11's behavior with shift modifier)

Don't close event editor when effect slot changes
Added size to fit option to channel rack button size menu
In the piano roll, the shortcut keys G, H, J and K will now go to the previous or next channel. H and J go to a used channel, G and K also go to unused ones.
Use "safe" color picker for channel gradient colors
Scale highlights is now set to "black notes" by default
Play truncated notes on transport is now on by default

Bugfixes:
Access violation when mouse hovers over the color picker window
Access violation when moving the mouse over the playlist and piano roll
All solo lights on MCU light up on start
Changing from solo to alt solo in the mixer doesn't work
Channel rack becomes sluggish when adding lots of channels
Ctrl, Shift and Alt buttons on the toolbar can get stuck
Master volume slider misaligned
Most recently used colors not added to color picker when it's opened directly
Rescan MIDI devices can stop playback in some cases
Show scale highlights option in PR doesn't have any effect
Size of some plugin windows increases when maximized and then normalized
Typing keyboard layout "FPC (C4)" is not correct
Unknown omni events in some templates
Velocity label in PR event editor scrolls when it should stay in place
Wrong pitch with RT stretch macro
Big Clock: integer pointer cast (potential crash)
Big Clock: preset arrows shouldn't be present
Edison: changed unique name generated when dragging an unnamed sample
Edison: "failed saving" error message in some cases
IL Remote: mixer mute states not updating
IL Remote: XY feedback not working
VFX Keyboard Splitter: wrong data read from default preset
Wrapper: effect plugins open as synths in some cases
Wrapper: fails to locate plugins in some cases
Wrapper: IQ-EQ plugin doesn't make sound until input is disabled and enabled again

12.3 beta 2
(26/04/2016)

Additions and changes:
Channels are shown more prominently in the Add menu
Incremental scrolling in playlist, piano roll and event editor
Added macro to set all audio clips to RT stretching mode
Playlist: ctrl+left click toggles solo
Playlist: place recorded audio clips in first (visible) empty track
Added shortcut to unsolo and unmute all tracks (ctrl + key above tab)
Added "midi channel through" option
Improvements to IL Remote feedback (also enabled by default)
Added option to control remembering previous state when using solo
Solo mode is auto-detected again

Bugfixes:
Automation clip name error
"Auto unarm" option in mixer resets when recording to playlist starts
Can't drag tools from bottom toolbar
Crash clicking around in SH-1 - Perseverance song (64 bit)
Cut in channel rack cuts selection in playlist
Browser resizes on minimize / restore
"Make unique as sample" doesn't remember stretch mode
Piano roll view style is messed up when switching between channels
Plugin added from Add > Channel goes to mixer instead of Channel Rack
Polyphony bug with realtime stretching
Problem moving FL window after changing main screen in Windows

Problem resizing playlist track height
Problem with time setting with RT stretched samples and "make unique as sample"
Remember sort column for plugin list in Plugin Manager and More plugins window
Routing control in channel rack not updated when recording audio clip to playlist
Some maximized plugins don't keep minimized window position
Target control in event editor window is missing
Toggling effect windows with detached mixer switches mixer inserts
Various fixes to channel rack sorting
Various fixes to new open and save dialogs
Control Surface: shows incomplete control names when loading settings
Control Surface: not repainted properly on load
dB Meter: window buttons are in wrong order after maximize
DirectWave: name of some mod matrix entries doesn't match parameters
DirectWave: show specific message when loading VST plugins with wrong bit size
Edison: detect pitch regions crash in 64 bit
FL Keys: typo in label
FPC: time slider mouse handling isn't scaled along with UI
Gross Beat: scaling and resizing issues
Patcher: parameters for plugins aren't updated when Patcher window is closed
Patcher: preset loads with wrong window size at 200% scaling
Patcher: flickering when resizing with Control Surface tab visible
Plugin Manager: plugin list isn't visible
Sytrus: resize moves text field over other panels
Vocodex: spin controls have ugly black borders when scaled
Wrapper: crash on preset change
Wrapper: indicates it wants midi input even when the input port is not set
Wrapper: plugin bridge loses connection to plugin in various situations

12.3 beta 1
(25/03/2016)

Additions and changes:
Real-time audio stretching
Lock channels to midi device (for note input)
Options for keyboard style in piano roll
Continuous scrolling in event editors
Plugin Manager and "More plugins" window GUI updated
Vector GUI for Sytrus, Fruity Limiter, Fruity Love Philter, Gross Beat, Maximus
Added Transient Processor plugin
Per-note event selector moved to editor at bottom of piano roll
Open and save dialogs are now more modern
Added "Project tempo" option to time wheel popup
Drag FL window from empty area of toolbar
IL Remote controller feedback
Channel rack: mute button shift+click changed to alt+click
Channel rack: resizeable channel buttons
Channel rack: option to sort channels
Mixer: re-arranged some controls for "current" track in wide modes
Rearranged Add menu contents
Wrapper: Presonus extensions for VST2 (high-dpi support, param context menus)
Wrapper: IK Multimedia plugins no longer default to using fixed size buffers

Bugfixes:
Access violation in browser when using left/right keys on plugin parameters
Black outline on pan wheel after loading NewStuff
Can't load mixer track presets with unicode characters in the name
Change color for multiple tracks changes icon if the first selected track has one
Change icon only works for initially selected mixer track
Channel rack resizes when using pattern selector
Channel rack won't copy and paste when detached
Clips don't trigger after vertical scroll in performance mode
Disappearing preset selectors on captionized windows
"Don't distract me" disables scrolling in mixer

FLAC export disk space is reported as 0KB
FLAC export freezes for 24 bit files in 64 bit
FLAC files don't have "open in editor" options in browser
Invalid event id error
Help file doesn't open to title page
Last node of automation clip is ignored when manually setting playlist position
Make unique as sample doesn't work in all cases
Maschine Mikro MK2 jog wheel doesn't work properly
Multiple "demo" messages to click away when autosave is active and FL is demo
No animation for internal controller selector control in "Link to controller" window
Ogg metadata doesn't export correctly
Overlapping clips cause playback issues
Override generic links crash
Override generic links doesn't work in mixer
Pattern selection reverts on its own
Pattern selector > Open in browser doesn't show patterns
Plugin slot color doesn't update when loading a plugin preset
Pressing ctrl+e in the mixer doesn't work
Replacing plugin keeps maximized state of previous plugin
Some FL 11 projects don't load correctly
Step sequencer resizes when tweaking "small scrollbars" option
Stuck note when opening popup menu
Undo insert playlist track also undoes the action before that
Wrong pattern painted in playlist
Wrong activity led color after changing a channel's color
Control Surface: control labels are wrong when loading a preset
Control Surface: "show buttons" state not saved in presets
Dashboard: access violation editing page names
DirectWave: memory leak loading some soundfont banks
EQUO: resizing one instance affects all instances
FPC: output selector doesn't go up to 103
Fruity Fast Dist: graphical distortion
Fruity HTML Notebook: can't locate image file
Fruity Soft Limiter: graphical distortion
Fruity Squeeze: pre/post switches not working
Fruity Squeeze: filter position disconnected
Fruity Vibrator: doesn't follow legacy scaling option
Newtone: snap setting not loaded correctly
Patcher: plugin editor not closed by pressing escape key
Patcher: processing mode isn't forwarded to plugins
Patcher: hanging notes sending midi to plugins
Slicex: higher up slices aren't dumped to piano roll
Soundfont Player: output selector doesn't allow negative offsets
Sytrus: export differences in 64 bit
Wrapper: access violation changing presets for legacy plugins in 64bit
Wrapper: bridged plugin can't send midi to FL
Wrapper: escape key doesn't close some VST3 plugins
Wrapper: EZ Drummer and EZ Keys don't play along with FL when recording
Wrapper: FabFilter plugins crash
Wrapper: GUI distortion when minimizing some plugins
Wrapper: FL responds to key events after plugin has used them
Wrapper: legacy plugins sometimes show "loading" while going through presets
Wrapper: mixer track name sometimes doesn't change when switching plugins
Wrapper: potential freeze showing a message from a plugin
Wrapper: real plugin name is not saved
Wrapper: settings panel not shown correctly after captionizing plugin
Wrapper: Slate VMR doesn't repaint properly in 64bit
Wrapper: Auto-Tune EFX VST3 outputs mono sound

12.2 (15/12/2015) Additions and changes:

Vectorized UI for DrumSynth Live and X-Y Controller
Type to piano scripts updated
Fruity Delay Bank: right-click to solo a bank (instead of popup menu)

Bugfixes:
Crash when changing input
Reverted to ogg codec to load ogg-encoded wave files
Ogg file export crashes
Preset selectors disappear when plugin window is captionized
Freeze changing mixer track assignment
DirectWave: ogg encoded wave files have clicks
Edison: keyboard shortcuts don't work
FPC: incorrect pad name in "Change name" window
Fruity dB Meter: meter scale is wrong when plugin is resized
Fruity DrumSynth Live: scales with legacy scaling option

12.1.6 (26/11/2015) **Additions and changes:**
(FL 12.2 beta 1) FLAC file export
Ogg files are now loaded without the Vorbis ACM codec
Added direct menu items to change color and icon of channels, patterns and plugins
Implemented Presonus "high-dpi" notification support for VST 2 and 3 plugins
Renamed "Flat display" option in plugin menu to "Simple list"
Manage Plugins menu item moved from Tools to Options menu
Replaced "Jap" in score preset names with "Japanese"
Added 3 Harmor template presets
Vectorized UI for multiple plugins

Bugfixes:
Fine tempo not loading
Arrows of track selectors aren't scaled
Right-click outside render window cancels rendering
Sampler paste values do not apply
Color correction only applied to first track when multiple tracks are selected
Stuck note when selecting active channel
Automation clip affects song when it's not active
Typing keyboard notes sometimes hang
Code execution vulnerabilities when loading certain .flp files
Crashes exporting to mp3 in 64 bit
Create sequence from env editor doesn't reset properly after a few times
Can't open project from Windows in FL while another project is loaded in FL
Associate FL 64bit with .flp files
Mixer track presets include docked state
Unicode issues when exporting to project bones
Unicode issue with recent project menu
Unicode issue loading mp3 files
Unicode issue with progress when loading samples
Unicode issue when arming a track for recording
File settings access violation when adding a folder
Crash when rendering to .wav file
Empty browser snapshot
Error when exporting project data files and project bones
Issue when FL is on screen with different scaling than main screen
Audio Clips stretch without Stretch selected
3xOsc: different sound in 32bit and 64bit
DirectWave: crash with "auto normalize samples"
Edison: Javascript script error
Edison: crash in "FindInDll" script in 64 bit
Edison: crash when acquiring noise profile in 64 bit
Edison: crash closing FL while Edison is recording

Patcher: hung notes with VST plugins
Patcher: Harmor cuts audio
Patcher: freeze triggering notes on VFX plugins
Slicex: tune loop crash
Slicex: recoloring channel changes piano roll view mode
Vocodex: noise when project is loaded
WaveShaper: no controls inside Patcher when scaled
Wrapper: load correct version for more plugins with different names of 32bit & 64bit
Wrapper: default "notify about rendering mode" to on for VST 3 plugins
Wrapper: Slate VMR doesn't paint entire UI in 64bit
Wrapper: send automation and param changes to VST 3 editors when UI is hidden

12.1.3 (25/08/2015) Bugfixes:

Fixed deleting existing steps when using the 'add steps' feature
Newtone: fixed critical error loading project settings
Plugin Manager: fixed some plugins failing when verified
Plugin Manager: fixed naming of Waveshell presets

12.1.2 (12/08/2015) Additions and changes:

New and improved Video Player plugin
Update main window caption when project title is edited
Launchpad MK2 support
Shortcut for stretch on/off in playlist is now Shift+M instead of Shift+S

Bugfixes:

Fixed cursor for slip tool - when not over a clip - from "brush" to "pen"
Ignore search paths that have been disabled in Plugin Manager
Cloned channels no longer cut themselves (if the original channel didn't either)
Fixed loading generator from "more plugins" window after fast scan
Fixed updating mixer track selectors when moving tracks
3xOsc: fixed sound of analogue saw shape (64 bit)
Control Surface: fixed scaling of controls
Newtone: fixed crash getting date from file
Sytrus: fix for crash with LP2 filter
Sytrus: fixed waveshaper sound (64 bit)
Video Player: fixed playback when FL counts down before playing

12.1.1 (31/07/2015) Additions and changes:

(public beta)

Notes over 120 (10th octave) now do various actions in live mode
Removed Steinway Grand instrument
Added new instruments: Close Grand and Stage Grand
Renamed "flat database" to "alphabetical"
Added FL executables that are scaled by Windows

Bugfixes:

Rename window empty for FX plugins
Effect names too long in extra wide view in mixer
Zipped channels cut off when resizing in mini PR view
Added track name and/or plugin name to automation clip names
Don't allow adding a track if there's anything on track 199 of the playlist
Fixed resizing of step sequencer when hiding/showing mixer track selectors
Fixed default filter in sample open dialogs
Dashboard: removed mixer track selector in channel rack
Delay Bank: Param reset on load
Edison: doesn't save sample filename as unicode
Fruity Send: fixed threading issue
Fruity Slicer: crash when trying to use elastique

Keyboard Splitter: velocity not correct for VST plugins
Keyboard Splitter: removed popup from manual mapping button
Newtone: abstract error when resizing editor
Patcher: "midi in" plugins now receive untranslated midi data as sent by other plugin
Patcher: pitch applied twice to VST plugins
Patcher: pitch difference when played through Flowstone
Patcher: can't drop channel preset
Vocodex: crash when selecting "Machine 2" synthesizer preset
Wave Traveller: crash changing preset from preview keyboard (x64)
Wrapper: sometimes shows editor with size of options window

12.1.0 (16/07/2015) Additions and changes:

(public beta)

FLAC import support
VFX Key Splitter plugin
Fruity X-Y-Z Controller plugin
Added "More plugins" window back
Launchpad Pro support
4 high quality FPC drum kits
Steinway piano preset for DW
Show random (fairly recent) news item
Periodically show different news item
Changed various defaults
Update reminder window
Mixer track assignments for channels in the channel rack
Full colorization of mixer tracks (and other visual enhancements)
Option to delete steps instead of muting them
Re-implemented sample history in channel settings window
Ctrl+S saves project even when mixer has focus
Now uses modern version of open and save windows
Plugin Scanner is now called "Plugin Manager"
Plugin Manager: new plugin info tab

Bugfixes:

Format panel in render window is open by default
Fixed disappearing ADD > Effect menu
Improved unicode filename support
Fixed dropping automation clips on playlist
Updated ogg/vorbis libraries to latest versions
Re-implemented popup menu for LFO editor for events
Fixed failure to unlock FL from about window
Fixed crash editing automation (64 bit)
Fixed freeze when song reaches end of playlist (64 bit)
Changed some label colors in mixer
Override generic links now works in mixer again
Fixed export crash (64 bit)
Fix for hint bar not showing up when scaling is above 100%
Fix for browser not focusing dropped item but parent folder instead
Fix for automation presets not being droppable to the playlist
"Delete file" menu entry won't appear anymore on "(none)" presets
BooBass: fixed crackles
Convolver, Dance, Harmor, Slicex: fixed truncated file names when saving
Edison: new preset, default recording time = 30 minutes
Edison, Slicex: support loading and saving samples with unicode names
Edison, Slicex, Convolver: fixed spectrum display bug
FPC: better unicode string support (filenames mostly)
FPC: import of DW programs tried to read unicode strings instead of ansi
Patcher: no voice kill when FL jumps position
Patcher: fixed sending midi cc to plugins on port that's not zero
Wrapper: interfaceless param update doesn't update visuals

Wrapper: fixed random interfaceless param value reset when changing them
Wrapper: fixed "TODO 3" message
Patcher: fixed crash dragging plugin "save preset as" to Patcher's channel button
Patcher: fixed crash loading Patcher state

12.0.2 (12/05/2015) Additions:

Wrapper: new option to determine what bit size to load for a plugin
FL Studio ASIO: added "clip" option

Bugfixes:

Fixed crash in about window
Fixed generic links behaviour for effect plugins
Fixed loading 64 bit plugins in FL 64bit
Fixed jpg support in FL 64bit
Fixed MRU color system in rename window
Fixed Fruity Slicer preset in plugin database
Fixed key value on export of score pdf
Fixed event recording bug
Fixed "item menu button" bug in 64 bit
Plugin Scanner: various bug fixes
Control Surface: button saves/loads wrong state
Convolver, Slicex: fixed popup menu bug
Dashboard: fixed crash when exporting as text
DirectWave: fixed import of 3rd party sound banks
Download Manager: doesn't remove "downloaded" (link) folders anymore
Edison, Slicex, Convolver: fixed noise profile doesn't work right in 64bit
Harmor: fixed GUI glitch
Newtone: fixed sample properties window
Parametric EQ2: bugfix
Patcher: fixed bug loading newtone
Patcher: fixed missing preset arrows
Scratcher: fixed crash on right click
Sytrus: fixed X/Y control over other controls
Sytrus: fixed black rectangle bug
Wrapper: fixed problem loading wrapper options
Wrapper: fixed crash loading MrRay73 plugin in FL 64bit
Wrapper: fixed reset of parameters of interfaceless plugins
Wrapper: fixed behaviour of parameters for Fruity Compressor (FL 64bit)

12.0.1 (21/04/2015) Additions:

Plugin scanner combines presets for separate versions of a plugin
FL Studio ASIO driver

Bugfixes:

Fixed freeze exporting NewStuff song
Fixed crash on processors with 3DNow! support
DrumSynth Live**:** fixed distortion with multiple instances
Patcher: fixed hidden latency labels
Plugin scanner: various fixes
Wrapper: fixed crash with two Fruity Balance instances (64 bit)
Wrapper: fixed freeze with bridged FabFilter Pro-Q
Wrapper: fixed crash closing detached bridged window

12.0.0 (12/03/2015) Additions:

New impulse samples by SoundIron
Updated Elastique stretching engine
UI updates for some plugins
Control Surface: touch support

Control Surface: controls are freely sizeable
Plugins are found by ID as well as by filename
Plugin scanner: can now use custom VST search paths
Plugin scanner: drag plugin from list to FL to open it
Plugin scanner: add or remove favorite plugin in FL
Plugin scanner: shows previously scanned plugin on startup

Bugfixes:
Crash on load in Windows XP
Generic links issues
Bug exporting split tracks
Various 64bit bugs
Control Surface: behaviour of button control
DrumSynth Live: sound glitch when root key is changed
DW: crash loading song in 64 bit
Edison: crash in limiter script (64 bit)
FL ReWire: several crashes
FPC: import from DW is faulty
FPC: access violation using "Save kit as presets"
FPC: doesn't load LudwigCS kit
Fruity Love Philter: freeze
Fruity LSD: playing notes from wrong midi port
Fruity Scratcher: freeze when mouse button is down and space is pressed
Patcher: Control Surface editor disappears
Patcher: knob won't move after renaming it
Patcher: knob disappears
Patcher: bugs in plugin window
Patcher: record automation for plugin leads to wrong values
Patcher: midi not sent correctly
Patcher: doesn't collect files from all plugins
Patcher: plugin exported from Flowstone freezes
Patcher: freeze when window is closed
Patcher: implemented key and mouse wheel support in plugin window
Patcher: update of automated parameter in Fruity Send
Patcher: output names for VFX Color Mapper
Speech synth: various fixes
Soundfont Player: freeze on close
Wrapper: plugin editors open in separate window
Wrapper: no sound with fixed size buffers
Wrapper: VST3 plugins update wrong parameters
Wrapper: crash opening placeholder window for bridged plugins
Wrapper: crash selecting presets in various NI plugins
Wrapper: preset change in Fruity Compressor doesn't update controls (64 bit)
Wrapper: GrooveAgent 4 VST3 crashes
Wrapper: "send mod x as poly aftertouch" is now off by default

11.5.13 (17/01/2015) **Additions:**
More scaled plugins

11.5.13 (07/11/2014) **Additions:**
64bit version of FL Slayer
New UI for lots of plugins
Improved threading

Bugfixes:
Improved plugin bridge

11.1.1 (02/09/2014) **Additions:**
64bit version of speech engine
Added support for Novation Launch Control XL, Launchkey (performance)
Added support for Nektar Impact series

Bugfixes:
Fixed filenames of samples used by "Dance with me" project
Fixed crash stretching big audio clips
Fixed loading settings for some VST plugins (64 bit)
DirectWave: fixed bugs exporting to FLM .instr files
DirectWave: fixed trigger group behaviour across programs
DirectWave: fixed temp folder usage when importing external formats
Patcher: fixed deletion of dropped files
Wrapper: fixed binary message data handling in VST3
Wrapper: fixed crash of bridged Play VST plugin
Wrapper: fixed volume of stereo to mono conversion
Wrapper: fix loading 32 bit VST plugins
Wave Candy: fixed crash when using some metering modes
Wave Traveller: fixed loading settings (64 bit)
ZGameEditor Visualizer: fixed visual issue + other minor bugs
Updated BassDrum, Drumaxx, DrumPad, Effector, GMS, Hardcore, MiniSynth, Pitcher, PoiZone, Sakura, Sawer and Toxic Biohazard
Updated FlowStone/SynthMaker to version 3.0.5

11.1 x64 (14/07/2014) **Additions:**
64bit version of FL and most plugins

Bugfixes:
Dashboard: fixed range issues for selector controls
DW: added "Create program from samples" menu option
FL VSTi: fixed bug sending midi events to host
Patcher: fixed crash loading plugin when using a lot of memory
Wrapper: plugin state is remembered even when plugin couldn't be loaded
Wrapper: fixed stuck "ilbridge.exe" instances in Task Manager

11.1 (25/03/2013) **Additions:**
MiniSynth generator plugin
Agnivesh demo song updated
new "Repeater" Gross Beat preset
updated Launchpad support
imports FLM zip files directly now
FLM project import updated for FLM v2.4

Bugfixes:
fixed crash moving mixer tracks
fixed detached window focus problem
fixed quantize bug
Convolver: fixed freezing bug
DW: fixed saving of current zone / global switch
DW: fixed dropping samples on zone list
DW: disable "delete zones" menu item when no zones are selected
DW: fixed loading some 20 and 24 bit samples
Flowstone: fixed crash on right-click of "wireless" modules
Flowstone: drag .fsm to plugin title bar to load it now works
Flowstone: use custom path to export FL plugin now works
Flowstone: swap links command works correctly
Flowstone: no longer empty after reload of FL project
Flowstone: now has midi output node in Patcher
FPC: updated presets
Newtone: fixed crash while playing a sample and resizing it time warp mode
Patcher: fixed crash loading plugins
Wrapper: fixed UI glitch loading preset with options window visible for some plugins
Wrapper: changes to the way some editors are handled
Wrapper: fixed CC parameter event values for a bridged plugins when loading

song
Drumaxx, GMS, PoiZone, Sakura, Sawer, Toxic Biohazard: bugfixes and updates

11.0.4 (25/11/2013) Additions:

Added several supported controllers
Updated "Sacco - Goldener Schnitt.flp"
IL Remote support
Novation Launch Control support
DJ TechTools Midi Fighter 3D support
Electrix Tweaker support
Livid CNTRL-R support
Livid BASE support

Bugfixes:

Fixed creation of extra row when starting to drag main toolbar
Fixed string comparison in browser for unicode characters
Fixes in controller support
Fixed loading some data from FL Studio Mobile projects
Control Surface: fixed oversized sliders after saving and loading a preset or song
Control Surface: fixed label width when loading settings
DrumSynth Live: fixed saving of "auto" option
Edison: fixed drag/drop to FL browser
FPC: fixed import of newer DW programs
Harmor: fixed crash moving points in envelope
Newtone: fixed wav save bug (only 1-1.5 seconds exported)
Newtone: updated engine (bug fixes, works more like FL playlist)
Newtone: move around with arrow keys
Newtone: fixed bug restoring some settings
Patcher: fixed incorrect GUI size showing plugin editors after loading old settings
Patcher: removed "notes" node from FL input module in effect version
Patcher: fixed handling of midi note on/off for effect plugins
Patcher: fixed next/prev preset buttons not showing for some plugins
Patcher: fixed loading of SimSynth in saved songs/presets
Patcher: fixed sample rate related problem with Synth1 presets
ReWired: fixed bug hiding plugin editor
ReWired: fix for device enumeration
Wave Traveller: fixed invisible editor bug the first time it's shown in Patcher
Wrapper: fixed keyboard input in some VST3 plugins
Wrapper: added context menu support for (some) VST 3.5 plugins
Wrapper: fixed crash with MeldaProduction MCompressor param changes (VST3)
Wrapper: fixed potential memory leak for VST3 plugins
Wrapper: improved forwarding keyboard messages from plugin to host (VST2)
Wrapper: fixed bug updating parameter display for interfaceless editors (VST2)

11.0.3 (20/08/2013) Additions:

ReWired: added CC parameters
New CoolStuff demo songs:
"RadioactiveSandwich - Homunculus",
"Fuego96 - SayWhat", "Fuego96 - TimeFlies"
Support for Midi Fighter 3D.
Support for Electrix Tweaker.
Support for Novation Launch Control.
Partial support for Livid CNTRL-R.
Right ctrl+click on some knobs & faders for immediate jump.
Click & hold on note edges to snap them (or glue contiguous).
Touch: double-tap title bars to maximize, double-pan title bars to move or resize.
Touch: undo/redo/cut/move notes using press & tap gestures.
Added + one channel button to step sequencer.
Added support for dropping multiple audio files in the playlist.
Updated triangle panning law not to sound louder (uncompatible).
New mouse wheel support to PR/PL channel/clip selectors.

New support for ctrl+middle mouse button zoom in PR/PL.
New realtime swing that applies to piano roll as well, with swing mix in channel settings.
New marker support in piano roll.
Improved selection of random notes and new selection of notes at odd step times.
Replaced chord tool by stamp tool in piano roll.
Scale levels tool now applies to velocities as well.
Improved tempo tapper.
Can now drag over the mixer button to bring up the mixer.
"Init song with these positions" added to multilink popup.
Added a big control popup to control the last tweaked parameter, also in the browser.
Ctrl+F11 to hide toolbars.
Optimized lists of remote controls

Bugfixes:
Fixed color change of "remove conflicts" label when linking conflicting controllers
Fixed "next by char" in browser
Fixed running FL as other user than the one it was installed as
Updated url used by "Register access to website" Help menu item
Re-implemented installation of OGG Vorbis codec for both 32 bit and 64 bit
Small fix in event editor
Most templates now have 'Play truncated notes in clips' on
Fixed freeze changing sample rate with NI ASIO driver
Fixed imprecision in automation clips.
Harmor: fixed bug related to ribbon saturation.
    IMPORTANT: the sound will be different now if you use ribbon saturation!
Wrapper: fixed access violation loading WaveShellVST in Patcher
Wrapper: fixed bug loading bridged plugins from FL10 as bridged
Fixed crash after deleting a second instance for these plugins:
    Convolver, Granulizer, Edison, Fruity Slicer, Harmor and Slicex
Newtone: jump to last start position upon stop
Newtone: disappearing selected regions when zooming out fixed
Newtone: changed glue mode to ALT
Newtone: new Snap Downbeat command (warp mode only)
Newtone: lowered precision of tempo display in wave properties window
FPC: random trigger option is now saved in pad preset
FPC: fixed 'save all samples'
FPC: fixed plugin database preset
Video Player: fixed visibility of start and end handles
Video Player: fixed video position when starting from random position in playlist
ReWired, FL ReWire: fixed location that ReWire dll is loaded from
DrumSynth Live: fixed default patch indication in key popup menu
Wave Traveller: improvements in Windows XP compatibility
Patcher: don't show module connection popup if all items are disabled
Patcher: fixed label position jitter
Patcher: fixed loading VST3 effect plugin from favorite list
Patcher: fixed latency label positions
Patcher: fixed song position for plugins after relocating to random position
Control Surface: fixed import of old floating point values
Control Surface: fixed slider size when pasting colors
Control Surface: fixed control position when loading settings (mostly XY)
DirectWave: fixed export of 16 bit int sample to FLM .instr file
DirectWave: fixed import of sustain loop from FLM .instr file
DirectWave: now sets multitimbral flag in exported FLM .instr file
GMS: fixed Dirty Horse TE preset
Drumaxx: fixed freeze at 100% when rendering

11.0.2 (21/05/2013) Additions:
Support for Livid OhmRGB.
Support for Behringer CMD LC-1

Bugfixes:
Fixed hint for time stretch wheel (low values)
Fixed slow rendering bugs
Fixed PPQ change bug
Remembers the state of the PR random tool's "patterns" checkbox
Fixed channel settings window showing up when loading projects
Patcher: fixed editor focus on double-click
Patcher: connection settings are now when an effect is dropped on a connection
Patcher: fixed request by plugin to load sample
DW 1.5.4: fixed import of FLM .instr files
Newtone: fixed passing strings with "foreign" characters to the engine
Newtone: fixed zooming modifiers (alt+scroll wheel)
Newtone: show param value popup when multiple items are selected
Newtone: new "Use beat marks" option for warp mode
Newtone: save .zpa and .zpw files to zipped loops
Wrapper: fixed relative knob behaviour for bridged plugins
Wrapper: fixed loading multiple instances of Waves VST3
Vocodex: fixed loading state of threaded checkbox
EQUO: fixed restoring state of Morph knob
Drumaxx: fixed changing assigned note for pads
BassDrum and GMS: various bug fixes
ZGEViz: updated/added some presets
Wave Traveller: fixed crash when loading a sample
Updated NewStuff & Zircon-Just hold on

11.0.1 (06/05/2013) Bugfixes:
bugfixes in piano roll and playlist
change to sysex for Panorama device
Patcher: fixed bug loading old VST plugin settings
Patcher: fixed bug adding (sub) Patcher preset with open surface tab
Control Surface: fixed loading back links to controllers in FL
Control Surface: fixed response to automation from other internal controller
Control Surface: fixed reporting XY control changes to host
Control Surface: fixed slider handle size when pasting colors
Control Surface: fixed saving/loading XY color
Control Surface: fixed adjusting slider properties to slider size
fixes to Seamless songs
Wrapper: fixed plugin bridge
GMS: fixed various crashing bugs
Effector: small fix
fix to Akai APC support

11.0 (22/04/2013) Bugfixes:
Wrapper: small bug fixes
Fruity X-Y controller: fixed joystick names

Additions:
Updated Patcher
New Control Surface plugin
Drumpad presets added
Updated Synthmaker/Flowstone

10.10 (28/02/2013) Bugfixes:
Important GUI-related bugfix.
Sending from browser to a focused attach plugin window now works.
Little bugfix in Vocodex (when band levels are zero).
Patcher: lots of changes and bug fixes

Additions:
Support for Novation Launchpad S & basic support for Launchkey.

VFX Color Mapper plugin (Patcher only).
VFX Key Mapper plugin (Patcher only).
Gross Beat: Click reduction feature enhanced to 3 states.
Improved speed of sinc interpolation.
Synthmaker updated to Flowstone
Newtone: added warp mode

10.9 (12/12/2012) **Bugfixes:**
Lots of small and bigger fixes
FPC: fixed threading bugs
DirectWave: fixed garbage in sample start/end strings
Patcher: fixed cpu usage

Additions:
Page Up/Down cycles through the current mixer track's plugin windows
Support for Panorama P4 & QuNeo controllers
Can now drop Patcher presets from browser/picker onto generators/effects to "Patcherize" them.
Double-clicking plugins in a picker called from Patcher, opens them in the caller.
Clicking a clip once (but not moving it) now also selects it (even when not playing).
FPC: option to reset all outputs
Newtone: changed implementation of "tempo sync" checkbox
Patcher: support for VFX plugins, rewrite of "map" tab
Wrapper: load 64bit plugin if 32bit isn't installed and vice versa

10.8 (30/09/2012) **Bugfixes:**
Lots of small and bigger fixes
Fixed filter automation import from .flm file
Soundfont Player: fixed loading of soundfonts (some problems with EnsurePAnsiChar)
Wrapper: fixed sending tempo to newly loaded plugin
Synthmaker: version 2.0.11
Video Player: fixed no playback/sound in some videos (alien song.mpeg)
Video Player: now remembers window size when no video is loaded
Patcher: fixed initialization of wavetables
Patcher: fixed XY control paint bug
Patcher: fixed loading sidechain output for some plugins
Patcher: fixed updating controls from mixer thread
DirectWave: changed FLM exported category (chromatic, so the icon is correct)
DirectWave: fixed start of wave file when imported from FLM .instr file
Downloader: fixed crash when looking for missing samples in FL
Downloader: show real download size if it's bigger than the “fake” one
Downloader: fixed freeze if you close content lib in FL while it's scanning, then click elsewhere
Downloader: fixed seeing new lists after downloading list updates

Additions:
New font rasterizer
Using AGG for drawing
Patcher: experimental voice effect support
DirectWave: support for new chunk based FLM .instr file format (import)
FPC: support for new chunk based FLM .instr file format (import)
Downloader: group all items with the same download filename, not just those with a download caption
Downloader: added option to “download all” (click on subcategory/cd captions in online list)
Downloader: captions in online section are collapsible now
Downloader: content lib window is now (also) embedded in the Download Manager window
Downloader: added option to always start content lib in Download Manager (allows it to stay open)

Animation selector in general settings

10.6.1 (16/07/2012) Bugfixes & additions:

Bugfix in channel settings after loading channel state.
Fixed restoration of plugin detached state in some cases, & now remembers maximized plugins.
Improved GUI engine in many ways.
A lot !

10.6.0 (2/07/2012) Bugfixes:

Fixed a long list of big & small bugs as well as memory leaks, in FL & plugins.
Fixed bug in endless knob control of VST plugins.
Fixed debug log window not scrolling anymore.
Fixed crash when browser sorts by file type.
Changed font charset in numerous places, for foreign users.
Fixed little alignment error in pattern clips.
Fixed tempo-related stretching error when loading 10.5 projects.
Fixed problem with omni MIDI control linking.
Made ctrl+right click to zoom out on performance/song sections (like middle-click & hold).
Fixed little mixer menu annoyance.
Fixed small bug in PR zoom.
Workaround for Windows touch keyboard sending return twice.
Browser position restored better.
Fixed bug in arp tool.
Newtone: send to playlist when no wave is loaded no longer results in a file with empty name
Patcher: fixed plugin name when dropping VST .fst preset
Patcher: fixed crash trying to load unavailable plugin
Patcher: fixed two crashes in effect version
Wrapper: don't kill automation when loading presets
Wrapper: Waves 9 x64 now shows shell plugin list
Updated Drumaxx, PoiZone, Sawer, Sakura and Toxic Biohazard plugins

Additions:

Partial support for multi-touch monitors in FL & some plugins.
Added warning when attempting to save inside the backup/autosave folder.
Automation of MIDI out knobs now only destroyed when changing range.
Added support for nanoKONTROL2.
Harmor: added import (drag&drop) for Komplexer WT wavetable files.
Harmor: added "Map audio regions to keys" with auto-dump to score, for Slicex-like drum loop handling.
Support for Windows "app commands".
Plugin picker: right click to open plugin + its presets folder in the browser.
New View->Arrange windows->Tablet.
FL Mobile: updated file format support
FL Mobile import now looks for instruments in shared data path too
DirectX plugin scanning has been removed
DirectWave: resample loop points on FLM export, improved interpolation
Wrapper: bridge now uses FL's processing thread priority for its processing
Added BassDrum synth plugin

10.5.0 (13/04/2012) Bugfixes:

Fixed wrong song time displayed on Mackie CU.
Fixed harmless glitch in multilink window.
Fixed rare crash when reloading projects.
Fixed bug for slots in 1-shot mode in Gross Beat.
Fixed problem with Fruity Slicer & other hybrid plugins.
Fixed bug in automation of automation clip's speed control.
Fixed little bug in multipoint LFOs in synths, when LFOs have a predelay.

Fixed many bugs related to closing FL or reloading projects.
Fixed crashing bug in Harmless related to legato in some cases.
Fixed minor bug in F2 picking random color in name edits.
Fixed several browser scrolling problems.
Harmor: fixed a tiny bug in the image menu.
Gross Beat: several fixes, improved resampling & less clicking.
Fixed little handle leak.
Fixed rare crash when pressing ALT on some systems.
Fixed error after recording audio in some cases.
Dashboard: fixed crash loading an instrument file with a reference to an non-existent patch
Dashboard: fixed double items in instrument list
Dashboard: fixed showing & character in instrument combos
DirectWave: fixed importing .sfz files
DrumSynth Live: fixed pitch problem at 96KHz
FPC: fixed freeze when changing midi loop file
FPC: fixed crash dropping sample on a pad that's playing
FPC: fixed cut/cut by values in "empty" preset
FPC: pad preset export now sets file extension (when necessary)
FPC: fixed releasing samples when exporting a pad preset
FPC: fixed pad preset default folders
FPC: fixed crash opening "save entire kit as pad presets" window
Synthmaker: various bug fixes (resizing)
Patcher: fixed update of XY control when automated
Patcher: fixed crash loading 2 instances and starting a new song
Patcher: fixed hint message flicker
Patcher: fixed crash deleting Patcher instance
Patcher: fixed freeze when deleting SF Player
Patcher: fixed (re)size of SynthMaker UI
Patcher: fixed use of mouse wheel over plugin UI
ReWired: fixed time calculation
Wrapper: fixed reset of Fruity Compressor settings after saving
Wrapper: fixed saving settings of The Grand 3 x64
Wrapper: various changes/fixes for bridged plugins
Wrapper: various fixes for VST3 plugins
Wrapper: added parameter index check for automation from VST plugins
Wrapper: fixed loading x64 Play from song
Wrapper: fixed some flicker in interfaceless UI
Wrapper: fixed loading shell plugin names from registry
Wrapper: fixed crash when dragging preset over existing wrapper that didn't have a plugin loaded
Wrapper: fixed loading saved bridged VST3 plugin
Wrapper: fixed crash opening and closing bridged plugin editor
Wrapper: got rid of "no disk in drive" error message when opening plugin from saved settings
Harmor: fixed small bug when copying bitmap.
Fixed tiny bug when MIDI controller out port set to zero.

Additions:
New performance mode.
Little change in MIDI message delivery engine.
Controllers: enhanced the behavior of jogs in piano roll and browser.
Remote control: can now assign notes/buttons to parameters in several modes.
New graphics for clips in playlist, improved graphics in piano roll.
MIDI inputs now have a port as well, and control surfaces are now linked by port, for feedback. Plugins can also get & filter direct MIDI input from controllers before FL processes it.
Links are now using MIDI ports, so no more conflict between controllers is possible, especially 2 controllers of the same type.
Added support for APC 20/40, Launchpad, Block, MASCHINE / MASCHINE MIKRO, padKONTROL controllers.

Piano roll: brush tool changed behavior to monophonic step mode (shift for old behavior).
Piano roll: click-&-hold resizing on 2 neighbor notes glues them.
Some new graphics for the step sequencer.
Ctrl+mouse wheel on channel button to change its mixer track.
Added visual feedback for free controls on the MCU controller.
Harmor: 2 new distortion modes.
Harmor: tempo-synced envelopes follow tempo changes better.
Fine tempo control merged with the tempo selector.
Improved tempo tapping, & implemented tapping for some MIDI controllers.
Added "Chop chords" option to piano roll Strum & Articulate tools.
Can now right click to check several menu items without closing it, in some popup menus.
New simple playlist track folders/groups.
Can type in names (full or partial) in plugin/project picker.
Added type-in editor to parameter popup (formatted as absolute normalized value).
Improved function of Home/Ctrl+Home/Alt+Home in piano roll/playlist (handy for previewing scores).
New auto-refreshing of USB MIDI devices.
PR/PL: hold SHIFT & CTRL to lock horizontally or vertically when moving items.
PR: use the mouse wheel while holding notes to change velocity. Also change tools while holding right click.
Articulator tools now available to automation clips (see channel settings menu).
Improved conversion of automation events into automation clips.
New downloader / content library
Dashboard: made midi reset message optional
DirectWave: select program with midi note
Fruity Squeeze: enabled mouse wheel for controls
Patcher: ask confirmation when deactivating a plugin param
Patcher: drop fxp/fxp/other files on plugin to load it
Wrapper: linked voice slides to poly aftertouch
Wrapper: implemented loading plugin presets from various default locations
ZGEViz: new version
Harmor: new "Image selected column" envelope.

10.0.9 (19/10/2011) Bugfixes:
Fixed a rare APDC bug.
Harmor: fixed absolute ramp speed+high quality bug.
Harmor: fixed bug in max height check for imported images.
Harmor: fixed bug in image sharpening.
Fixed playlist bug when accessing tracks over 99.
Fixed tiny problem in envelope editor hint.

Additions:
Harmor: Mod XYZ smoothing now controls filter freq smoothing as well.

10.0.8 (5/09/2011) Bugfixes:
Fixed bug in automation of channel arpeggiator chord selector.
Fixed a rare bug in Maximus.
Fixed bug in conversion of step seq to piano roll while playing in song mode.
Fixed some possible problems with extended memory in plugins.
DirectWave: Fixed bug loading some samples from FL Mobile in player mode
DirectWave: Fixed crash loading specific .sfz files
Wrapper: Fixed disconnecting some plugin parts when deleting VST3 plugins
Patcher: Fixed bug increasing GDI object count
ReWired: Fixed problem loading plugin with "smart disable"
ZGE: Some bug fixes

Additions:
Env editor: envelope loops don't need a sustain point anymore.

Smooth point modes now in all plugins.
New "Song start" marker type.
DirectWave: Import and export FL Mobile .instr files
FPC: Export FL Mobile .instr files

10.0.5 (21/06/2011) Bugfixes:

Fixed crash when trying to automate all parameters of a plugin that has no named parameter (like Patcher).
Slicex: Fixed bug in drum replacer tool.
Fixed bug in loop recording (result ending at the wrong time in the playlist).
Fixed little bug in step editing when piano roll is visible.
Fixed Edison's "Acquire noise threshold" broken for 16 bit samples.
DirectWave: Fixed small bug with finding missing samples
Slicex: Fixed possible case where deck B's associated file wasn't collected in zips.

Additions:

Added "Recording starts playback" option for pressing record to start playing/pressing stop to stop recording.
New "Gap" knob in PR articulator tool, to ensure a gap between notes.
New "Smooth" point mode in envelope editor (plugins & FL).
Env editor: adding a point near the existing segment (with snap off) inserts that point precisely on the segment.
Env editor: panning (middle button) also displays envelope without points (freeze).
FL Mobile file import

10.0.2 (17/05/2011) Bugfixes:

Fixed minor bug in playlist clip preview.
Fixed note properties not always selected when clicking on notes.
Fixed filenames in DW presets in Patches\Packs
DirectWave: fixed freeze when sliding notes for "bounce" looped layers
Downloader: fixed bug finding installed path
Downloader: use correct user folder for refreshed lists
FPC: fixed unmuting pads in some cases
Newtone: fixed undo crash
Patcher: fixed Y knob automation for XY controller
Patcher: fixed crash when pasting control/param values
Patcher: fixed update problem when pasting value for activated param
Patcher: fixed crash when clearing
Patcher: removed Granulizer from plugin list
Patcher: read thumbnails from plugin database in addition to plugin thumbnail list
Patcher: fixed unlink velocity behaviour
Patcher: fixed sending midi pitch to VST plugins
Patcher: fixed midi out from some plugins
Patcher: fixed freeze using Absynth 5 x64
Patcher: fixed SF Player freeze
Patcher: fixed lock request from plugin
Patcher: fixed transpose implementation
Patcher: fixed crash in effect version when not enough audio outputs are available
Fixed possible hang in undo when using interfaceless VST1 plugins
Fixed wrong tempo exported in rendered projects after messing with steps per beat setting.
FL VSTi: fixed freeze on export in Cubase

Additions:

Wrapper: added IAudioPresentationLatency support for VST 3 plugins
Reversed behavior when left/right clicking on the mixer arming button.

10.0.0 (29/03/2011) Bugfixes:

Fixed problem with sidechain selectors in Vocodex.
Fixed a tiny bug in the envelope filter tool.
Fixed rendering start time problem.

Fixed small bug on playlist loop marker deletion.
Fixed bug when deleting playlist clips through their menu.
Fixed bug when undoing recording of audio+piano roll when there were no notes yet.
Fixed crash when sending presets directly to the plugin window in some rare cases.
Fixed bug in Fruity Love Philter's waveshaper.
Fixed sample browser's hot hint minor bug.
Fixed bug in Fruity Convolver's own smart disabling.
Slicex & Fruity Convolver now store local filenames (avoiding searching).
Audio clip positions now snapped to samples (better for linear interpolator).
FL VSTi: fixed crash on close in other hosts.
DirectWave: improved sfz import.
Fixed bug in playlist song loop marker when piano roll pops up.
Bugfix in Riff Machine's randomization.

Additions:
New project browser.
Patcher plugin.
ZGameEditor Visualizer plugin.

9.9.0 (28/02/2011) **Bugfixes:**
(public beta)
Fixed problem when relocating effect plugin slots.
Fixed time signature in exported midi files.
Edison: fixed javascript using pascal unit.
DirectWave: fixed freeze when opening a project and switching to another application.
FL VSTi: fixed editor size reported to host.
Newtone: fixed crash on file > new.
Wrapper: fixed bridge timeout.
Wrapper: endless knob support for bridged plugins.
Wrapper: fixed crash with Slim Slow Slider's Sidechain Comp.
Wrapper: fixed saving of settings.

9.8.0 (11/01/2011) **Bugfixes:**
(public beta)
Fixed piano roll zoom bug.
Bugfix in Vocodex's sidechain selector.
DirectWave: fixed "random" rename of DW channel on reload
Newtone: reset playback position when stopping playback in FL
Newtone: fixed crash copying notes
Newtone: fixed clicks/pops on audio export
Newtone: made sample loading safer
Newtone: changed note center behaviour
Newtone: fixed display of bars when time signature changes
Newtone: fixed midi timing issue
Soundfont Player: disabled threaded processing
Wrapper: fixed buffer crash in bridged effects
Wrapper: fixed initial i/o assignment for bridged plugins
Wrapper: avoid division by zero errors in bridge
Wrapper: fixed crash on exit for bridged plugins in some circumstances
Wrapper: fixed detection of 64bit dlls
Wrapper: other changes and fixes for bridge

Additions:
Alt key flips snapping instead of forcing it off.
New "Frozen LFO" option in envelopes.
"Multilink to controllers" 's popup now features single last tweaked parameter as well.
Score export to PDF file.

9.7.0 (22/11/2010) **Bugfixes:**

(public beta)

Fixed crash when "Split by channel" while PR is open.
Fixed vel mapping not updating when "resetting" it.
Fixed broken View->Browser menu items.
Fixed stuff related to song loop markers.
Fixed bug in playlist's merge pattern clips.
Fixed right-clicking on pattern selector in step seq.
Changed behavior of right-clicking on the playlist's scroller.
Auto scrolling disabled when adding markers.
Fixed held click on clips using pencil.
Fixed wrong cursor when shift+add note in PR.
Maximus: fixed bug when envelope is set to flat centered.
Fixed 2 little browser auto hide bugs.
Fixed reset values in channel settings knobs for automation clips.
Improved keyboard focus in FL plugins.
Fixed sorting of channels in piano roll's list.
Fixed case sensitivity in plugin picker key search.
Opening a plugin doesn't keep the previous sample loaded into the channel in some cases.
Added workaround for graphic driver bug on title bars in some cases.
Little bugfix in envelope editor.
Fixed bug in PR's vertical zoom.
Fixed APDC bug when disabling plugins.

Additions:
New playback/preview tool in playlist (alt+right click).
New "New pattern" button in step seq.
Ctrl+middle click on playlist tracks to resize them.
New "Small scrollbars in editors" option.
Playlist: left shift flips pencil/brush.
Added beats to time segment options in PR/PL.
Piano roll: (shift+)H or J cycles through filled channels.
"Make unique" now warns if the clip is already unique in the playlist.
Alt+click on ghost notes becomes double-right click (and still X1 button).
Filenames stored in project files now packed using known local data paths and system ones, for better shareability.

9.6.0 (30/09/2010) **Bugfixes:**
(public beta)

Fixed bug when pressing F2/F3 in name edits without color selection.
Fixed bug relocating in a piano roll in song mode.
Fixed a new bug in Harmless' self-osc.
Fixed long pause when relocating mixer tracks on dual cores.
Wrapper: Fixed info flags bug that caused shell plugins to fail to load
Wrapper: Removed some log entries that caused slowdowns
Wrapper: Fixed loading/saving settings when switching to and from bridged mode
Wrapper: Various fixes loading plugin settings
Wrapper: Fixed crash with bridged Crystal VST
Wrapper: Fixed loading Waves plugins from settings
Wrapper: Support interfaceless VST3 plugins
Wrapper: Properly set plugin name when loading a VST3 subplugin
Wrapper: Fixed freeze in BitterSweet II
Wrapper: Various changes in bridge to prevent freezes
Wrapper: Hide editor windows when showing options window instead of closing them
Wrapper: Fixed some memory leaks
Wrapper: Fixed note velocity for VST 3 plugins
Wrapper: Fixed locating a 64bit plugin from settings
Downloader: Fixed crash when using prev preset function
Downloader: Fixed installation "error [0]"
Downloader: Fixed update of list from within plugin
Downloader: Fixed listing user items
Downloader: Fixed showing unrelated paths for lists that had "FL" download

location
FL Studio VSTi: Fixed "no audio" bug when loading FL VSTi from file in Studio One
DirectWave: Fixed loading of compressed wave files
FPC: Notify FL of changed semitone names when loading a mapping

Additions:
Reworked piano roll (vertical zoom).
Mute tool now flips mute state on a whole row when used on the side keyboard in piano roll.
Pause key now pauses playback (like ctrl+space).
Added basic support (transport controls) for Kontrolux keyboard.
Added "remember seek time" option (right-click stop button).
Improved deleting of overlapping notes/clips (now only deletes the top one).
Added waveform display helper (Alt+N) to piano roll/event editor (drop sample onto them).
Improved zooming from side keyboard in piano roll.
Added optional more precise playback indicator in PR/PL/EE (view menu).
Alt+click or X2 button on ghosted notes switches to the note's channel.
Shift+wheel now moves channels, mixer tracks, playlist tracks & patterns (in step seq selector) around.
Improved auto scrolling when moving events around.
Song loop marker becomes song loop mode for normal markers, right click freed on time bar.
New handle to rescale scores.
PR's note hint now also adds key name & MIDI note #.
Added the "Assign all to->MPC/Trigger Finger/padKontrol pads" option in Slicex.
Improved zooming/scrolling/grids in FL (no more zoom selector) & several plugins.
Improved right-shift+click on markers in audio editors.
Double-right click in PR now mutes (but still selects in stylus mode).
Middle click on the PR keyboard to resize it.
New click-free "magic lasso" experimental feature (works well enough in PR, not so much in crowded PL).
X1 mouse button on existing notes starts a selection.
Added "Quick quantize start times" tool.
Changed Caps Lock to allow resizing notes from left to Ctrl+Home (see Edit menu).
Line snap=tick snap at max zoom level.
Browser can be set to auto-hide (docked or floating).
Fixed multithreading bug with adjacent mixer tracks routed to the same hardware outputs.
Updated mouse cursors.
New auto backup/auto save system (that also includes the old trash bin folder).
"Close all windows" doesn't hide floating toolbars anymore.
Project browser: "Automation" renamed to "Patterns", patterns in them have proper pattern popup that allow renaming & relocating, patterns have proper colors, and extra mouse buttons move through patterns.
Added "Lock to most used clip" feature to playlist tracks, to mimic playlist block behavior.
Fixed note lengths being off by 1 tick.
Fixed mouse wheel bug (Delphi's fault).
Removed old "Main automation" named pattern from (minimal) templates.
Optimized size of near-empty FLPs a little.
Middle-clicking <> preset selector brings presets in the browser.
In pattern mode, single-clicking on clips jumps to patterns or channels.
Project browser now lists patterns that have steps in the step seq.
Fixed lots of mem leaks.
Rendering & loading progress now shows in Windows 7 taskbar button.
Improved channel's "assign free mixer track".
Fixed weird escape key problem.
New vertical zoom in envelope editor (shift or alt+wheel, double middle click, etc).
Wrapper: Can now load VST3 and 64bit plugins by dragging the .dll/.vst3 file to the

wrapper
Wrapper: Added extra options for fixed size buffers for special cases (mostly hardware-accelerated plugins)
FPC: Pads can have empty names now
FPC: Added wheel support and level zooming for env editor
Fruity Envelope Controller: Added level zooming for env editor
Newtone plugin
Pitcher plugin

9.5.0 (7/07/2010) (public beta)

Bugfixes:
Little modification in loop recording.
Fixed memory leak in spectral display.
Harmless: little bugfix in oscillator import.
Maximus: fixed bug in oversampling (all times were doubled).
Fixed "black note=hold, white note=toggle in remote control" that was broken for lower octaves.
Playlist: marker relocation now undoable.
Fruity WaveShaper: switching to bipolar behaves better when alt curve point mode is used.
Fixed bug in playlist clip merging.
Fixed various redrawing oddities.
Fixed adapting automation events when changing PPQ.
Fixed window size bug in Slicex.
Fixed minor inaccuracy in automation clips timing.
Fixed EQ mix knob bug in Fruity Convolver when opening it from menu.
Fixed little drag/drop mistake in Harmless.
Fixed odd bug with effect sidechaining when loading specific projects.
Ogun: fixed tiny memory leak.
Fixed little bug in envelope editor open dialog.
Fixed rare visual bug in env editor.
Fixed slight loop recording problem.
Wrapper: fixed initial size of some VST 3 plugins
Wrapper: fixed mouse wheel speed for VST 3 plugins
Wrapper: fixed issue listing plugin i/o after a change initiated by the plugin
Wrapper: fixed knob mode setting for VST 2 plugins
Wrapper: fixed stack overflow when activating plugin
Wrapper: fixed potential crash while loading plugin
Wrapper: fixed problem for some VST 3 plugins
Wrapper: fixed mixing of multiple outputs to plugin track when fixed size buffers are used
DirectWave: fixed reliance on MS runtime dlls
DirectWave: fixed resizing of options dialog when fonts are scaled
Envelopes: fixed neverending envelopes with unconventional arp setups.

Additions:
Much improved "keep on disk" option.
Piano roll/playlist/event editor: removed "Delete all", cut/copy/delete now applies to all if no (events and time) selection.
Inverted behavior when resizing clips from left side with slip editing.
Prevents early recorded notes when "wait for input" is on but "recording precount" is off.
Improved auto placement of recorded clips in the playlist.
Automation clips & envelope editors: left alt bypasses snap while editing, right alt (& also alt+right click) deletes points, improved step editing (post decimation).
Improved piano roll note display (faster & looks slightly different), ghost notes now really ghosted.
ASIO: now avoids buzzing while lots of underruns occur.
Playlist: tracks can now be resized individually.
F3 in name editor picks last used color.
Added offset feature for better (less bad) DirectSound performances under Vista.

Added new alternate playback tracking mode that doesn't rely on driver, as well as offset.
Added option to mix directly in ASIO's buffer switch.
New playlist marker options.
Playlist now showing bar #s after 999.
Playlist/piano roll: can now display time segments other than 4 bars (View->Time segments).
Can now relocate project in song mode from piano roll.
Slightly less clicking when switching presets.
Less clicking when relocating songs with audio clips (& granular effect on clips when declicking is generic or above).
Option to move playlist marker content left & right.
Option to play notes crossing playback start position.
Better sorting of MRU colors in name edit.
Improved autoscrolling for some editing features.
Improved playlist Edit->Merge pattern clips.
Piano roll delete/mute doesn't create undo level before actually deleting/muting.
Manual (de)selection now creates undo level.
Shift+up/down now works in playlist too.
New "Merge similar pattern clips" editing feature to merge selected patterns & all their clones.
Playlist: option to disable track grid.
Speeded up playlist display, some new display options.
Time markers now displayed as ticks in main song position slider + their names in its hint.
New "copy/paste value" for envelope (& automation clips) points, compatible with parameter's "copy/paste value".
New "duplicate" (ctrl+B) option in piano roll & playlist.
Event ID ranges are now cached (for speed).
Improved scrolling & optimized refreshes in PR/PL/EE.
"Select time around selection" now selects the zoomed part when no selection.
Activity indicators for playlist tracks.
PR/PL: Insert now cuts events at mouse cursor position.
New "wide tracks" mixer view.
Added support for Cakewalk A-Series controllers.
Added support for M-Audio Oxygen controllers.
Left shift+resize now move splits in piano roll & playlist.
Right shift+resize now rescales events in playlist as well (slightly differently).
Changed "Make unique" and added "Make unique as sample" for audio clips.
Home (begin) key now relocates to the bar that's the nearest to the beginning of the view (ctrl+home starts from zero) in PR/PL.
Improved meters everywhere.
Automation clips & internal controllers don't prevent using event automation for the same parameter anymore.
Changed way channel pitch bend is automated, to allow proper use of link smoothing.
When an automation clip is created for tempo or channel pitch bend, a default "sane" range is assigned to the clip.
Little speedup in Fruity Limiter, Maximus, Vocodex.
Edison/Slicex/Fruity Convolver: holding shift while dropping files appends audio to the existing data (ctrl still replaces regions).
Markers now imported from MIDI files to the playlist.
Little improvements in step edit mode (inserted notes are selected, can now relocate using time bar in PR).
New waveform (peak tracking) view for mixer meters.
Added "Current clip source" list in playlist track menu (listing the clips sources used in the track).
New triple buffering ASIO mode.
Wrapper: added messages while plugin is loading and when it's failed to load
Wrapper: added 32bit bridged mode to run VST 1, 2 and 3 plugins in a separate process, to let them use more memory (not supported for DirectX plugins)

Wrapper: added support for 64bit VST 1, 2 and 3 plugins (not supported for DirectX plugins)
FPC: small changes to saving/loading
Maximus: improved crossover.

9.1.0 (2/02/2010) **Bugfixes:**
Fixed wrongly reported latency in Vocodex.
Fixed broken filter tool in envelope editor (in all plugins).
Fixed little bug in playlist "merge pattern clips".
Fixed crash in some rare cases when replacing & plugin that has an event being edited in a piano roll.
DirectWave: fixed loading old states saved with total recall
DirectWave: save wave files before saving the .dwp file
DirectWave: now responds to FL max polyphony value
DirectWave: no more drag and drop of foreign formats in DW Player
DirectWave: "Save program" now shows a dialog window if the filename isn't valid
DirectWave: minimize lock when loading of settings
DirectWave: update browser after saving a program or bank
Downloader: works correctly with unicode characters in filenames
FL ReWire: fixed crash when closing ProTools with FL loaded
FPC: show options menu when you click on the pad name label
FPC: selected layer is now remembered when window is hidden, shown and resized
FPC: fixed root path for loop files
Fruity Envelope Controller: small fix in envelope editor
Wrapper: adjusted pitch bend range selector
Wrapper: pitch bend range is now saved with other plugin options
Wrapper: rescan plugin properties adter loading settings
Wrapper: fixed freeze with Fruity Delay
Wrapper: re-implemented loop position calculation

Additions:
Added "realtime" flag support (useful for hardware-supported plugins).
Browser's F5/F6 (or extra mouse buttons, or ENTER or middle click) now sends to the focused plugin (or the selected channel if there's none) (handy for testing files in effects).
Edison/Slicex: original sample filename now stored in states/projects (to remember the last file loaded).
MIDI import dialog doesn't show for MIDI files with only 1 track & 1 channel.
Right-clicking piano roll's channel selector brings the channel settings and plugin editor.
Added MP3 export to Edison.
Edison (paxCompiler-powered) scripts now support Javascript & Basic.
Changed 'Select' to 'Replace' in effect plugin menu when there's already an effect loaded.
Improved tempo fitting dialog in playlist.
Edison: added "send to playlist as audio clip" shortcut button.
An empty name in the channel grouping edit now sends to the unsorted group.
Changed the method used by assisted PDC a little.
New "PDC for all tracks" helper for PDC.
Improved hovering of contiguous piano roll notes/playlist clips that are grouped or selected.
F2 in name editor cycles through random colors.
New Harmless synthesizer.
New Fruity Convolver effect.
Piano roll note color selector can show special color names for some generators.
FPC: added "Show in browser" option to loop menu
Wrapper: added button to update plugin properties
Wrapper: indicate if note message is real time or not (VST & VST3)
Wrapper: some more speed when copying interlaced to separated buffers and back

Wrapper: store plugin filename, use it to find the plugin when loading settings

9.0.3 (24/11/2009) **Bugfixes:**

Fixed window focus problem when dropping MIDI files onto a piano roll from an external source.
Fixed problem when creating automation clips for channel parameters in some cases.
Fixed patterns listed in inverted order in the step sequencer.
Fixed slight browser flicker in some rare case.
Fixed open dialog not defaulting to all types problem in WinXP.

Downloader: fixed showing downloader for effect plugins
Downloader: fixed update process
Synthmaker: corrected an issue with exported FL plugins where the plugin wasn't fully instantiated until the GUI was opened
Synthmaker: fixed a bug that prevented sysex from being received from an external MIDI device

Additions:

VST3 plugin support
Dashboard: added "send pitch bend range" option
Wrapper: added pitch bend range selection field
Wrapper: added support for Presonus parameter menu interface (VST3 only)

9.0.1 (26/10/2009) **Bugfixes:**

Fixed minor bug when right-clicking mini piano roll view for immediate jump in some cases.
Fixed minor browser bug.
Kb preview now works better as notes are released when you select another channel.
Changed priority stuff when background rendering.
Fixed bug loading old projects with internal controllers in sends.
Fixed crash in Edison's scratching tool.
Fixed possible hang when using remote control with smoothing enabled.
FPC: fixed issue cutting preview voices
Wrapper: don't respond to "update display" messages during saving
Wrapper: input names were sometimes shortened
Wrapper: fixed deadlock when i/o changed
Fixed little Delphi memory leak.
Fixed crash in Fruity Stereo Shaper when both delay & phase were in use.
Wrapper: rewrote small part of DX plugin initialization
Wrapper: fixed loading old DX plugin state if plugin wasn't found
FPC: pad volume wheel resets to 100% instead of 0%
FPC: mute button now works correctly if there are multiple pads triggered by the same semitone
FPC: deleting a layer would delete two instead of one
Downloader: custom download location wasn't used in some situations
Video Player: fixed "Ignore tempo changes"

Additions:

Added 'Sidechain to this track only' option in mixer.
Added 'Create submix to' option in mixer.
Added 'Override generic link...' to knob popup menu.
Slightly improved Sytrus rendering quality.
Double-clicking a playlist track edits its mostly used clip.
Speeded up refresh of multidirectional playlist scrolling.
Wrapper: added option to disable threaded processing for a specific plugin, applies to any new instance of that plugin
FPC: added random triggering of overlapping layers
FPC: added DW program file import
DirectWave: added trigger groups

DirectWave: searches for samples in subfolder with the program's name when loading a .dwp

9.0.0 (10/09/2009) Bugfixes:

Fixed dropping mixer presets onto mixer tracks failing to select the right mixer track when shown at the bottom.
Fixed crash when closing FL when playlist was shown & toolbars were detached.
Fixed undocking annoyances in the browser.
Fixed slow undocking of toolbars in Vista.
Fixed Vista blur visible when hiding Wave Candy windows.
Fixed OS error when song was running and returning from Vista's logging window or screensaver, while autoscrolling was on.
Fixed hang when opening FL's main menu while holding accelerator keys in Vista.
Fixed bug in Flangus & Flangus in Sytrus.
Added workaround for missing characters in font used to display old GUI-less VST's.
Updated timers to Vista-preferred ones.
Fixed erratic cursor visible for a short time after dragging from browser in Vista.
CPU meter no longer shows 99% when audio is temporarily suspended (was often reported as a bug).
Fixed visual bug when detaching windows in Vista.
Fixed crash when reloading projects through ALT+x shortcut, while a plugin is detached & focused.
Fixed bug in multipoint envelope processing.
Fixed crash through weird mouse click combo on the plugin preset buttons.
Fixed annoyance in browser's 'show only one folder content'.
Fixed problem when loading Maximus presets made with a specific version.
Fixed some playlist key combo weirdnesses.
Fixed not release defaulted to zero for some functions (step edit, piano roll dumps, etc).
Fixed piano roll flam tool that wasn't starting with the right settings.
Improved piano roll playback tool (can't miss tiny notes with fast mouse slides anymore).
Fixed a little thing in the mixer's menu.
Step edit mode: improved behavior when going backwards while holding notes.
EQUO: fixed wrong FX send track display when reloading projects.
Fixed possible hang in playlist Insert space/Delete space functions.
Wrapper: fixed chunk size loading and saving bugs
Wrapper: fixed updating the preset list for Attack when loading a Cubase preset
Wrapper: don't save parameters if plugin has chunks but returns 0 for its chunk size
Wrapper: small fix for interfaceless plugin labels
Wrapper: fixed sysex implementation
DirectWave: fixed crash when canceling "Browse" button
DirectWave: fixed sample loading from absolute paths
DirectWave: more robust external bank import
DirectWave: avoid "no disk in drive" message when loading samples
DirectWave: small improvement to drag and drop
DirectWave: fixed event handling for hosted VST plugin
DirectWave: fixed browser update after clicking "Browse..." button
FL ReWire: now uses tick position for ppq calculations instead of sample position
Canceling audio clip's "fit to tempo" detection dialog now cancels the fitting.
Edison: snapping to zero-crossing (improved for mono samples) now allows to select edges of the sample.
Maximus: fixed display glitch for bands that are switched off.
Sytrus: mouse wheel on pitch ratio selectors now behave better.
Edison: no more pops in sample playback when selecting.
Edison: fixed tempo set to 120 when undoing in some rare cases.
Edison: hint for tempo grid now properly follows downbeat marker.
No more problem locating project files over networks.
FPC: fixed pause point for layer pan and tune knobs

Wrapper: update interfaceless parameters in the GUI thread instead of the mixer thread
Wrapper: dropping fxb and fxp files on the title bar of the plugin window and on the step sequencer button now works
Edison: changed file-based audio undo system (standalone versions were conflicting).
Fixed playlist automation clip display bug.
Slicex: fixed little declicking glitch for specific cases.
Slicex: fixed little region-related bug when undoing.
Fixed problem with hint system in plugins.
Fixed little stretching glitch in some cases when a downbeat marker is present.
Fruity Reeverb: store parameter changes in selected program instead of the first one
Video Player: fixed loading some settings
Downloader: fixed crashes starting a download
Downloader: fixed incorrect "last selected" item
Wrapper: fixed infinite loop when an effect's inputs were inactive
Wrapper: switched off scaling of options window
Wrapper: send special tempo message to old FL VST plugins (mostly for Fruity Delay)
Wrapper: prevent crash when changing parameters on interfaceless plugins
Wrapper: initialize input buffers to zero every time (gets rid of noise in Zebra2)
Wrapper: don't show editor window above options window when opening saved project
Wrapper: sidechain inputs now work correctly (instead of all routed to the track of the first input)
Wrapper: send parameter changes with float value instead of integer (fixes automation recording)
Wrapper: midi in and out ports are remembered
Multiband Compressor: fixed crash related to MS runtime
Wave Candy: Auto visual mode state now properly restored, some other bugfixes.
Slit pattern by channel now preserves pattern's beats per bar setting.
Fixed some common window-related weirdness (windows covering others while they shouldn't, etc).
Fixed troubles with snapping grid with specific PPQ settings.
Fixed minor bug in envelope smoothing tool.
Edison: fixed problem when reloading a state that had envelopes not mixed down.
Fixed problem with FL's hint bar sometimes not refreshing when loading things.
DirectWave: flush plugin if a sampled note didn't reach silence
DirectWave: all zone parameters are now changed for all selected zones, when "current selection" switch is on
DirectWave: mod reset now works for multiple selected zones
DirectWave: fixed the way a soundfont property was counted on import
DirectWave: overwrite existing wave files when sampling a vst (but only .wav files)
DirectWave: make sure the sample rate is sent to the plugin before processing a vst plugin
DirectWave: DW no longer steals keyboard focus, except for edit controls
DirectWave: Loading a DWB file now tries to load a sample from file if it's not in the DWB
DirectWave: DWB files now save a reference to the file instead of the sample data when total recall is off
DirectWave: fixed acm import - sample length wasn't adjusted after conversion (was sometimes less than predicted)
DirectWave: Fixed mouse position inaccuracy for pitch bend and mod sliders (multi tab)
DirectWave: put critical section for sample preview slightly earlier
Downloader: store location in global registry during installation, instead of just in local registry
Downloader: fixed some crashes when the downloader couldn't find the download dll
Downloader: selection window now has minimum size

Downloader: fixed bug that caused downloads to start again after being finished
Downloader: fixed download location calculation in manager
Wrapper: Ampersand was shown as a shortcut underline in the options window (info section)
Wrapper: fixed a bug loading Arturia AnalogFactory settings
Wrapper: midi port changes after a plugin was dragged didn't make the wrapper ask the host to enable midi input
Wrapper: Added code to load shell plugins from different filename than when they were saved
Wrapper: use different way to determine if a plugin is VST1 or not
Wrapper: removed first check for value of FruityPlug in UpdateSize to make sure editor size is updated when loading the plugin fails
Wrapper: don't get parameter labels and value for shell plugin (waveshell) to prevent crash
Wrapper: fixed buffer (effect version) now doesn't zero output buffer and takes into account plugins without inputs
Wrapper: fixed assumption that an effect would have inputs
Wrapper: "onlysavefirstprogram" workaround for Blood Overdrive and Compressor is now used for all VST1 plugins
FL Keys: high notes are now always decayed on release, instead of released immediately
Fixed minor automation bug in Slicex.
Fixed minor graphical mistake in mixer skin.
Up/down controls should now have no more problem with multiple monitors of different sizes.
Downloader: fixed prev preset selection
Downloader: fixed focus bug related to modal content selector
Downloader: fixed bug executing items after download, wrong list was used
Downloader: paused downloads are now added at the top of the list
Downloader: tree will refresh less frequently
Downloader: now deletes all relevant .info files when removing waiting or finished downloads; tp get rid of multiples
Downloader: tree won't jump back to top when refreshing in response to finished download
DirectWave: made sure soundfonts load even though a (previously mandatory) chunk is missing
DirectWave: added support for 24 bit and 32 bit aiff files
DirectWave: fixed loading soundfonts with multiple banks/presets when those were resorted
DirectWave: continue to load soundfont even if it doesn't have the "isng" chunk
Wasp XT: fixed graphical glitch in slider button
Wasp XT: parameters past unison had the wrong index when sent to the engine
Wrapper: calculate new sample position when plugin is processed, instead of when wrapper is processed
Wrapper: decreased max value of interfaceless wheels to prevent weird behaviour
Fixed memory leak in browser.
FL Studio ReWire: fixed bus enumeration bug
Wasp, Wasp XT: fixes related to parameter handling
Wrapper: Check if current program index is valid when loading
Wrapper: Check if the current program index is valid when saving
DirectWave: can hear hosted VST plugin again (to preview sound)
DirectWave: 440 Hz tone works again in FL version
FPC: some GUI tweaks
FPC: assign entire font instead of just color and style in SetComponentProps
FPC: selected layer is no longer reset when resetting an automatable param
Downloader: files would keep coming back if deleted with right-click
DirectWave: fixed loading (not loading) settings in player and demo mode for FL version
DirectWave: fixed product code communication in FL version
Wrapper: note on/off messages to DX plugins now work again
Wrapper: don't show hints for parameter changes while a parameter is being

changed from the host
Wrapper: inputs and outputs were set to inactive for old settings

Additions:
Wave Candy: added rounded corners size selector, made Vista blur look better, made preset switching faster.
Improved multithreaded generator performances.
Improved audio performances in Windows Vista.
No one really asked, but auto scrolling state is now saved & restored.
Updated compiler (D2007), drag & drop component, IPP library to latest versions.
Added Janko layout to typing-to-piano keyboard option.
Maximus now significantly faster.
Plugin picker: thumbnail hint now shows all of the plugin's categories (also selected through arrows or mouse wheel), + other improvements.
Added multithreaded mixer tracks processing, and moved CPU settings to the audio panel.
Added global smart disable checkbox & new aligned tick lengths checkbox.
New debug log in settings window.
Can now double-click on effects in plugin picker.
Added multithreading to effects processing.
Can now drop effect presets onto mixer tracks & channels, mixer track presets onto effect slots and channels, channel & generator presets onto mixer tracks & effect slots.
Shift+F8 now brings plugin database.
Automation and Humanizing presets folders relocated to the Scores folder.
Can now drop automation FSC's onto piano roll (when a controller is selected).
Added access to Windows file shell menu from browser item menu.
Added new browser folder icons & new 'Recent files' browser folder.
Added starting & (approximate) working time information in project info window.
Controls (in FL & FL plugins) now properly support Vista's window rescaling (font size).
FL now accepts file drops in copy, move & link modes.
Alt+drag from browser = force drag in 'link' mode.
Edison now drags files in move mode, to avoid extra temporary files (when dragging from an Edison/Slicex/Sytrus to another, or between Slicex decks).
Dropping file onto the 'Open audio editor' shortcut button now opens it in a new audio editor.
Dropping file in 'move' mode (e.g. from Edison/Slicex/Sytrus) onto browser moves file to browser folder it's dropped on.
Wave Candy now behaves better when 'Stay on top' & 'On desktop' are off: both off = normal floating window, Stay on top on / On desktop off = will be hidden when popup dialogs appear.
Added scrollbar for zooming to Fruity Envelope Controller in key & vel mapping modes.
New browser 'Sort by -> Group' option to put most important folders on top (sort group in .nfo files).
Song info window now shows up while loading project.
New (optional) big hint bar, showing progress more clearly when loading projects or processing lengthy stuff.
Edison/Slicex: new 'Export regions->For sampler use...' that exports with marker middle notes, and improved export.
Improved envelope point decimation (used in automation-to-automation clip & Sytrus/Ogun).
Can now drop audio files onto most envelope editors (does same as audio analysis).
Playlist now sticks to right edge when browser is resized.
'Close all windows' now closes detached windows too, and added 'Close all unfocused windows' option, to keep the focused one open.
Missing plugin warning (now only once per plugin type) now the same for wrapped VST's.
Added browser hovering helper for too large items.

Envelope step editing now works with snap off, with point decimation.
Edison can now be maximized (double-click title bar or press enter).
Added level scaling & point decimation tools to envelope editor (in plugins).
Shift+mouse wheel to quickly zoom browser.
Extended browser extra search folders to 30 entries.
New (fortunately optional) project data folder setting.
Fruity WaveShaper: gutter is now clickable.
Playlist Edit->Insert / Delete space now cuts through playlist clips.
Plugin picker now features categories.
Enlarged playlist & piano roll time bar, playlist panels are not swappable anymore.
Piano roll / playlist local menu (F3 or extra mouse button 2) now lists editing modes.
FL's audio displays now show proper region purpose colors.
Playlist: extra mouse button brings clip source selection popup.
Fixed (I think) infamous invalid playlist clips bug.
Added random color option for patterns, made playlist clip focus selector update along with default item.
Added useful colors menu to name edit dialog (right-click color button for random color).
Audio clips are auto-colored when dropped (& playlist track is auto-colored when clip is dropped on it).
Added 'Select by selected source' in playlist, to select clips of patterns or channels that are selected.
Brand new playlist track naming & tools for better song organization.
Mixer icons now available to channels (& playlist tracks).
New playlist 'behind clips' modes (& old bevelled mode is gone).
Playlist auto-focuses clip type when current clip source changes.
Improved playlist clips display at small sizes.
Added 'Deselect' & handy 'Select time around selection' option.
Added a couple of new mixer icons.
Improved 'Best fit' & 'On selection' zoom presets (will zoom on selected items if no time selection exists).
Improved note & clip deletion (won't miss events when rapidly deleting) & fixed little bug in note deletion from note properties.
Added note & clip muting.
Improved note & clip moving/resizing detection.
Added note & playlist clip grouping (works on selecting, moving, resizing, deletion, muting, shifting using mouse wheel).
Recorded audio clips in loop recording mode are now muted, instead of the associated channel.
Added 'group notes' option to piano roll chop, arp & flam tools.
Improved vertical scrollings in event editor / piano roll / playlist.
Middle click now works as panning & works vertically as well in piano roll / playlist, and made it work in event editor as well. Shift+middle click or shift+right click works as old (inverted) bidirectional scrolling.
Alt+mouse wheel on playlist now vertically zooms in-place (like ctrl+wheel on time).
Added support for Korg nanoKEY, nanoPAD & nanoKONTROL controllers.
Added button for portamento (just like for slide) to piano roll.
Piano roll / playlist: right alt + right click to quick quantize a single note / clip start position, end position, or both (works in slip edit mode too).
Piano roll / playlist brush mode now works better for note / clip lengths that aren't quantized.
Improved Edison's resampling (for even better prefilter transition).
Added 'Only with selection' & random seed options to PR articulate tool.
Added 'Center' knob to piano roll / event editor level scaling tool.
FL built-in tempo detector changed to alternate (constant tempo) one.
Edison: new Regions->Detect beats option.
Edison / Sytrus / others: added new envelope point modes.
'Make unique' on automation clips now copies (preserves) the link to the control(s).

Right-clicking the piano roll 'select' button brings the select menu.
Ctrl+Shift+right click in playlist zooms on a single clip (handy to edit automation clips).
Improved oversampling quality & speed (Sytrus, Fruity WaveShaper, etc).
Groove quantizer: can now delete notes too (by just setting velocity to 0 in templates).
New 'Riff machine' piano-roll tool (see Tools in main menu as well) to create riffs by blending various templates & settings.
Sytrus: added new 'improved', 'even' & 'blurred' unison distribution modes (see options menu).
MIDI input messages are now logged (only when log window is visible).
Number of insert tracks upgraded to 99, for a total of 105 mixer tracks.
Slicex: right-clicking slice output selector now brings a popup listing mixer track names.
New Fruity Stereo Shaper plugin (for stereo splitting and effects).
Edison: new 'Lossy normalize' option to maximize short samples without audible loss.
Edison: setting sample to tempo-synced defaults the tempo (if not set yet) to the one of the host.
Audio files recorded from FL's mixer now embed tempo information (the tempo at the time of recording, for the audio clip 'Fit to tempo' to work without having to guess the tempo).
Last tweaked parameter menu moved from plugins to FL's Tools menu.
New 'Tools->Last tweaked->Override volatile link...' to set up a MIDI knob that always controls the last tweaked parameter.
Multilink to controller's LED popup now applies to the last 2 tweaked params if the list is empty.
Wave Candy / Fruity Dance: anim window popup now features 'View settings' to bring up the actual plugin editor.
Fruity Dance can load user sprite sheets.
New 'Claw machine' score tool in piano roll (works well along with Slicex).
Edison: right shift + mouse for tempo fine tuning.
PR/PL/EE, and Edison/envelope editors: new auto scrolling when hitting edges while editing.
PR/PL: new "snap to other events" mode (also works with ghosted notes).
Event editor can now be aware of which plugin parameters appear 'centered' (supported by Sytrus so far).
Some menu items (save plugin preset & score) can now be dragged around (like browser files).
Added option to invert piano roll grid colors (for improved readability).
Wave Candy: added new metering modes for loudness visualization, and new vectorscope visualization, also mouse X1/X2 buttons switch mode.
Can now drop channel data (samples, etc) onto piano roll (more intuitive for Slicex).
Holding ALT while SHIFT-rescaling piano roll scores snaps rescaling ratio to 25%.
Missing project samples now located first in project folder, then only in last folder where previous missing data was found.
Loading a project with missing samples now asks for the content downloader to locate them.
Right-clicking the 'enable effect slots' mixer buttons now shows or hides editors of all plugins for that track.
Fixed little Slicex resizing glitch.
Slicex: improved realtime & offline in/out declicking.
Incoming MIDI notes now have their MIDI channel mapped to the corresponding selected channel in FL (MIDI channel 1 controls first selected channel, MIDI channel 2 controls second selected channel, etc).
Edison: added new spectrum display gradients.
Audio clips (& sampler channels): added various declicking modes in channel settings window.
Envelope editor: improved tools.
Ogun: new Create pad harmonics tool.

Newbie enhancement: 'Start on input' feature is not saved/restored anymore.
Can now export a piano roll to a MIDI file (notes only).
Dropping audio clips onto playlist aligns them properly according to the downbeat marker (if present).
FruityLoops Edition users who have purchased Edison VST can now use the FL version in FL.
Updated to LAME 3.98.2.
Improved playlist mouse wheel scrolling.
Right-clicking the playlist clip focus button brings a list of either audio, automation or pattern clip sources.
Improved "split mixer tracks" rendering filename management.
Edison: new "natural weighting" & improved "natural scale" for better spectral display, as well as new (slow) high quality mode that brings both time & frequency accuracy (especially in natural scale mode).
PEQ2, Wave Candy & FL now use natural weighting for their spectral display.
Added note helping lines in piano roll when notes are played.
Improve envelope editor's envelope smoothing tool & decimation tool.
New envelope filter tool in envelope editor.
Wave Candy: improved scale feature, and added piano kb helper to spectral display.
Fruity Reeverb 2: added option to process side.
Improved mixer's input "automap" feature (doesn't map mono inputs, and doesn't route them to master to avoid feedback).
Updated scripting engine used by Edison scripts (should allow VB scripts now).
Updated score logger to work better with tempo changes (works a little differently now).
Can now delete playlist clips from their menu (handy for overlapping clips).
Added note preview when changing velocity (or other properties) in piano roll using ALT+mouse wheel on nearest note.
Edison: improved loop tuner (new tension feature).
Change: audio tracks are no longer set to "cut themselves".
Slicex: new attempt at auto-naming regions (only kick, snare & hi-hat for now).
Removed RBS file import (not much useful anymore).
Added option to open Fruity LSD in MIDI import dialog.
Added support for sample preview in browser & plugin picker using NFO files using "Preview=SampleFileName".
Browser now lists DWB files.
Edison can now export to OGG files.
'Waiting for input' feature now 600% noob-proofied.
Support for WavPack files in FL, Edison & Slicex, preserving original WAV info.
Plugin picker now answers to alphanumeric keys.
Added glow/shadow border option to Wave Candy.
Speed up in sinc interpolator.

Wrapper: added option to steal keyboard focus from the plugin
Wrapper: adapted to new drag and drop implementation
Wrapper: buffers are now aligned better
Wrapper: adapted effect version to be threadeable
Wrapper: added "Record parameter changes" option
Wrapper: added options screen to replace options menu
Wrapper: implemented multiple inputs and outputs for effects
Wrapper: multiple inputs and outputs now works with the "Use fixed size buffers" option
Wrapper: can now load new "shell" plugins (WaveShell v5 and newer, mostly)
Wrapper: minimize locked time when loading a plugin
Wrapper: re-implemented saving and loading of settings to be more future proof
Wrapper: optimized most buffer operations (copy/add/interlace/deinterlace)
Wrapper: new look for interfaceless editor
Wrapper: now loads VST 1 and DX plugins automatically, instead of FL's internal host
Wrapper: fixes to save/load settings for Fruity Compressor and Fruity Blood

Overdrive
Dashboard: send controller values on playback start
Fruity Squeeze: adapted to be threadeable
Fruity Multiband Compressor: adapted to be threadeable
Fruity Scratcher: adapted to be threadeable
Fruity Video Player: adapted to be threadeable
FL Studio VSTi: added tray icon to easily show/hide FL window
FPC: pad now triggers different velocity depending on vertical position of the mouse cursor
FPC: added "Show GM note names" option to show/hide names in the note selection menu
FPC: adapted to new drag and drop implementation
FPC: added popup menu with mixer track names to output selector
DirectWave: increased maximum polyphony from 64 to 512 voices
DirectWave: added browser preview volume control
DirectWave: added home button in browser
DirectWave: browser paths are shortened when they're inside the content library folder
DirectWave: added option to copy imported dwp and its samples to the content library folder
DirectWave: re-arranged options window
DirectWave: new import dll
Downloader: bring selection window to front when it's opened again (from FL's news toolbar or from plugin)
Video Player: load video when file is dropped on title bar or step sequencer button
Wrapper: load VST plugin when dll file is dropped on title bar or step sequencer button
DirectWave: added control to set maximum release time for sampled notes
DirectWave: implemented new downloader interface, modeless
DirectWave: click on empty area in scrollbar(s) to go to that position
DirectWave: Updated CT dll
DirectWave: Reduced max polyphony to 256 to reduce cpu usage when idle
Downloader: cache results of product code registration check to speed it up a bit
Downloader: implemented ilreg system
Downloader: improved filter speed
Downloader: only filter when filter text is at least 3 characters
Downloader: Implemented delete, move up and move down for items in manager's list
Downloader: ToxicBio, Sawer and Morphine downloads can now also be downloaded from the selector (if the plugin is installed!)
Downloader: improved "last view" behaviour a little bit
Wrapper: now reports the sound device's i/o latency to the plugin
FPC: layer shows newly added item (i.e. scrolls to it)
Downloader: added buy button
Downloader: Changed status bar message for failed downloads, when the user is boxed
Downloader: option to load regcode from file now also works in Windows
Downloader: added "download regcode" menu item in manager
Downloader: added possibility for web link items
Downloader: double-clicking a failed item will go to the registration page (boxed) or retrieve regcode page (online users)
Downloader: changed text for boxed registration popup menu item
DirectWave: added "copy to all zones" options for a number of zone properties
FPC: added some more locks when creating layers
FPC: new skin, some more changes
FPC: added possibility to "spread even" on a logarithmic scale
FPC: locking layers doesn't automatically spread them even anymore
FPC: now remembers the midi loop name when preset/file is loaded back
Wrapper: cleaned up error message when DX plugin isn't found
Diagnostic: changed "fruity fonts" font to "tahoma"
Wasp: decided on a volume log scale to get the new Wasp engine as close to the

old one as possible
Downloader: changed buy and info links
Downloader: use image-line.com for redirect link instead of flstudio.com
DirectWave: implemented ilreg protection
DirectWave: added wavpack support
Downloader: set on top if modal
FPC: implemented .padpreset loading in FPD_LoadFile
Wrapper: added "Reset plugin" button to Info page of Options window

New plugins:
Ogun: synthesizer specialized in metallic timbres.
Gross Beat: beat rearranger effect.
New Autogun synthesizer based on Ogun.
Vocodex: vocoder effect.

Implemented & removed:
Right-clicking playlist items no longer deletes them (hold halt to do so). (thrown, user complaints)
Can now middle-click working area to "pan" plugin windows (ONLY plugins, as it's designed for oversized VST's). (thrown, too many annoyances)

8.0.2 (05/06/2008) Bugfixes:
Fixed rare crash when loading new project while playlist is visible.

Additions:
Added preview to Edison & Slicex tools.
Added knob for note release in step sequencer & piano roll randomizer tool.
Implemented new audio clipboard format to counter Windows's inability to handle long bits of audio.

DirectWave:
Fixed vst rendering if a plugin reports zero programs
Fixed window resize (window kept getting bigger)
Fixed memory leak when loading external banks
Create Temp folder before import of external banks
Browser is refreshed when the lib path changes
Fixed crash when importing samples with long filenames (longer than 31 characters)
Fixed a mouse capture issue
Fixed bug exporting waves for VSTi programs that start or end with spaces
Fixed some small visual glitches
Fixed filename extension extraction bug
Increased browser button size
Removed mouse wheel velocity sensitivity
Added tablet pc / stylus option for controls

FPC:
Fixed crash when sample is used normal and reversed
Doesn't load the midi loop into the piano roll anymore when changing preset

Fruity Wrapper:
Fixed glitch when changing "bottom toolbar" setting
"Send pitch bend range" is now off by default
Fixed buffer size communication bug on plugin initialization

8.0.1 (21/04/2008) Bugfixes:
Added missing folders in the Patches folder.
Fixed hints on renderer's bit depth selector.
Fixed misaligned browser thumbnails when file extensions are shown.
Fixed very rare browser bug.

Fixed bug in multipoint envelope release when release time was zero.
Fixed little Slicex bug.
FPC: doesn't load the midi loop into the piano roll anymore when changing preset.
Wrapper: fixed bottom toolbar behaviour.
Wrapper: "Send pitch bend range" is now off by default.
Wrapper: fixed buffer size in some cases.

Additions:
Right-clicking browser button now brings plugin picker.
Made Edison & Slicex load associated ZGR files.
Gave ZGR files less priority than built-in WAV slicing information.

8.0.0 (09/02/2008) 10 years

Additions:
anniversary! New **Slicex** drum loop slicing generator plugin.
New **SynthMaker** modular environment.
FL finally supports MIDI SysEx input, and handles basic MMC functions.
Added error message at startup when MMX or SSE1 is not found.
Cleartype not forced on anymore for mixer labels for Win9X platforms.
Right-clicking splitters (browser, piano roll, playlist) for spare position.
Project browser: can show/hide plugin editors from the generators/effects folders.
Generator smart disable is now compatible with threaded rendering.
Added mouse wheel support to popup menus & combo selectors.
Added some extra mouse buttons support.
Added (manual) plugin editor thumbnails to project browser.
Sinc interpolator now faster (64point sinc now usable real time).
New slope modes for LP/HP/LS/Peak/HS bands in Parametric EQ 2 plugin.
New 'multilink' option for quicker remote control assignment, creation of multiple automation clips, etc.
Added 'Edit whole mapping' to Remote control part of the project browser.
Optional stereo waveform display in playlist.
Re-implemented CME UF keyboard support (although MIDI feedback sometimes makes no sense).
Parameter smoothing now works for relative knobs or other incremental MIDI controls too.
Improved parameter smoothing.
Can now define absolute increment steps in MIDI remote control window.
Playlist->Edit->Shift left/right now works for audio clips too (including using control surface jogs).
Added full support for the Mackie Control Universal.
Improved support for some controllers.
Improved 'undo knob tweaks' to support tweaking several parameters at once without slowing down.
Love Philter: piano keys assigned to patterns.
Tweaking controls on VST(i)s now show a hint message in FL's hint bar (when possible).
Wave Candy: fixed some bugs & added Vista window background blur.
Updated to LAME 3.97.
Improved latency compensation 'Set from' option.
Rendering with latency compensation.
Added slip editing in playlist clips, as well as little changes in resizing tools.
Improved accuracy of MIDI input recording under high GUI CPU load.
Can now move effect slots around using the mouse wheel.
FL (& some FL plugins) now support .ogg format.
Introducing 'Selected' mixer track, to which the selected mixer track is routed, and in which you place visual effects or a recording Edison.

Ctrl+E to quickly open an audio editor in a mixer track, or Shift+E to open an audio logger.
Added score logging feature, not to miss scored played while testing.
Piano roll: added 'Select at random' to select 10% random notes, for variations.

Playlist: clip source selection now in titlebar, and clips panel now on top by default.
One-click audio recording now prompts to record in Edison.
Improved RAM usage meter for some systems.
Can now resize multiple playlist clips at once.
Caps lock function changed to allow resizing of notes from left side in piano roll.
Added recording filter (right-click record button).
Newbie enhancement: snapping is on by default.
Newbie enhancement: browser snapshot now defaults to slot 1.
Newbie enhancement: window menu icons replaced by holly down arrows.
New spectral view in monitor panel.
DrumSynth: added call to SendPatchToEngine to Voice_Release, to temporarily fix a release problem when multiple voices are active
Automation now displayed in pattern clips, improved event editor display.
Channels in piano roll channel selector are now sorted by channel group.
New list of available patterns when right-clicking the pattern selector.
Patterns named '-pattern name' now act as separators in lists.
Added OGG Vorbis rendering target.
Added randomize & humanize to multilink menu.
Default audio device changed to ASIO4ALL.
Newly-recorded patterns now added as pattern clips (when in song mode).
Fruity DX10: mod init and sustain calculations now also take sample rate into account
Changed piano roll keyboard modifiers a little (see help file) to add a new SHIFT+click to add note in resize mode.
Added 'Send previous/next to selected channel' option in browser. Works well with extra mouse buttons too.
Default peak meters scale bottom changed to -70dB, alternate scale down to -50dB.
Introducing FL-chan in wallpapers.
Newbie enhancement: 'save as' icon blinks once 5min after the last save, then each 30 sec after 10 min.
Changed generator multithreaded processing method a little.
Adapted wav file loader for more bad interpretations of a bad format.
Mapped incoming "all notes off" MIDI message to panic.
Removed obsolete '16.8' version of the 32Bit wav rendering.

Edison:

EQ, blur & reverb tools now remember their envelope editor settings.
unselects when live selection is too short (<150ms), and added live selection as published parameter.
new fancy waveform display mode, and option to export display to bitmap file.
added stereo waveform display.
new slave sync, pause button, transport active when not playing, support for control surfaces and keyboard input (to slice or for sampler preview).
can now link notes to markers/regions (for use in Fruity Slicer).
added "Undo mix (spectral)" and "Paste mix (spectral)" features.
added keyboard (to note or to slice) preview.
added 'quick rename (all)' option to rename all regions to drum names.
Edison & Sytrus now captionize themselves when starting a sample drag.
new Tools->Send to playlist as audio clip, to send the clip to the playlist at selection, linked to the same mixer track as Edison.
new drum(loop) stretching tool (& paste replace (drum)), with improved gaps filling.
CTRL+DRAG drums from one instance to another, to replace drums in a loop with drums from another loop.
slide option now works on markers/regions too.
hold right-shift to move markers more accurately (temporary zoom).
New phase editing feature in Edison's EQ.
Added middle note & score detection
Improved smoothness when recording for several minutes

new 'dual view' mode showing both waveform & spectrum.
added tools->sequencing->send to selected channel, to quickly send audio to the selected channel without dragging (mainly for Fruity Slicer).
Changed spectral display's windowing to Kaiser.
new support for region types, and grid aligned to first downbeat marker.
new tempo detector that gives better results for fixed-tempo songs.
added 'Time format' menu to display time regardless of the grid mode.

Dashboard:

fixed scroller freeze issue
edit string dialog now pops up on correct screen
"send value" for patch control no longer generates an exception
messages are no longer added to a buffer to be sent during processing

FPC:

invalidate synthpanel on resize, to avoid graphical glitch when resizing the editor with "Show window contents while dragging" off in Windows
mouse wheel now changes pad
some cosmetic changes
pan envelope is now bipolar
fixed some save dialog glitches.
fixed envelope handling.
added wave preview in open dialog.
small UI changes
better behaviour when samples are missing
changed direction for changing pads from mouse wheel
fixed midi loop loading, it now takes into accounts the steps per beat

Video Player:

do nothing in TVideoViewer.AcceptMediaSample to prevent creeping cpu usage
moved position updates from Process to Idle function, to save some cpu usage
detached video will now keep playing if the plugin editor window is hidden
added "Ignore tempo changes" option
fix to prevent rising cpu usage.
"render fast" is now the default

Fruity Wrapper:

"Export all programs as Cubase presets" saved the current program in every file
fixed new implementation of ProcessParam to avoid "integer overflow" exception when adding an automation clip
added hint when plugin parameter changes
some fixes in ProcessParam
now flushes plugin (inactive/active) in the PlugIOChanged callback
don't send "all note off" message for effects
the fixed size output buffer for effects are now initialized to zero before processing
now call AllocBuffers when the block size changes
renamed menu items for saving/loading fst and fxb files to "VST" instead of "Cubase"
added "Send note off velocity" option
implemented support for sysex messages sent by the plugin (untested)
let FL re-read key names when updateDisplay message is received from VST plugin

DirectWave:

fixed bug showing save program dialogs

added file compatibility options to (global) options dialog
"gain" control on zone tab now defaults to 0.0dB again
"gain" control on zone tab is now multiplied to the volume instead of added
updated downloader implementation
double-click on zone (or zone index) now opens sample tab
now need to right-click on sample scroll bar to zoom
fixed drag&drop crash
made library scan (for popup menu) a lot faster
fixed browser resizing from config dialog
fixed behaviour of browser expansion with multiple instances
changed volume and velocity implementation
re-implemented soundfont support, now supports 24 bit soundfonts
fixed resizing in FL version, made it more spec-compliant in VSTi version
some VST specific improvements
fixed crash in VSTi when opening/closing browser because of incorrect FL version check
effect switches on the zone page now also act according to the "global" switch
improved demo mode save/restore for VSTi version
fixed window size bug (browser open/closed) when opening editor
fixed ogg import, made it use 32 bit float samples instead of 16 bit int
restructured files, recompiled
fixed "full range" behaviour for selectors

(**Bug)fixes** :

Bugfix in envelope point snapping.
Bugfix in Sytrus unison sub.
Little bugfix in Edison's looping tool & trimming option.
Bugfix in stretching engine.
Bugfix in monophonic mode combined with Fruity Slicer plugin.
Fixed weird bug importing corrupted playlist data from FL6 projects.
Fixed keystrokes not getting to FL when mixer was detached & focused.
Fixed strange bug with ASIO.
Fixed little bug when reordering mixer tracks.
Fixed crash when closing FL while project browser was open.
Fixed tiny browser bug.
Fixed bug in WaveShaper & Sytrus bipolar to unipolar mapping conversion.
Fixed thread-locking issue with multiple smoothed up remote control combined with visible project browser and knob tweak undo enabled.
Bugfix: quick quantize no longer resizes playlist clips.
Fixed rare arpeggiator bug.
Fixed problem loading some VST 2.4 plugins.
Little bugfix in Sytrus envelope release combined with sustain level.
Fixed crash in Vista when Data Execution Prevention is on
Fixed some possible deadlocks when MIDI-controlling parameters.
Fixed little bug in Fruity Slicer's note dump.
Fixed little problem in MIDI input window.
Fixed big bug in wav file loader when regions have comments.
Changing MP3 bitrate in renderer now doesn't reset all plugins anymore (was slow for some plugins).
Fixed browser not restoring top item in some cases when switching snapshots.

7.0.0 (03/01/2007) Little GUI redesign.
Sytrus: hint in harmonics editor not lagging anymore.
Sytrus / envelope editor: ctrl+shift to bypass point snapping.
Sytrus / envelope editor: multilevel undo & display updates.
Fixed little memory leak in browser's history.
Fixed wrong displayed hint for automation clips.
No more flicker when resizing plugin windows.
New resampling engine, support for mono & 32 bit wavs.
Mapped scroll-lock key to FL's autoscrolling.

Switched to Delphi 2006.
Fixed tiny glitch with mixer icons.
BeepMap: can now drop bitmaps onto channel buttons.
Improved audio recording to disk (no more crackles when recording lots of mixer tracks).
Reworked toolbars, with CPU usage graph and RAM meter.
Can now edit samples from the browser item popup.
Can now drop any file onto the browser to get the folder added to the extra folders (handy when using the browser to preview sounds).
Added large browser aspect.
Fixed minor bug in multiband compressor (master meter was all mono).
Fixed crashing bug in Granulizer.
Little bugfix in Fruity Delay Bank.
Small UI changes & optimizations in Sytrus.
New Fruity Love Philter effect plugin.
Sytrus: little speed improvement when processing arpeggiated/gated presets.
Audio device now stored by name rather than by index.
New Edison audio editor.
Right-shift in piano roll & playlist to pan the editor (same as in Edison).
Support for 16 bit integer/32 bit float/mono/stereo samples inside FL, Fruity Granulizer & Fruity Slicer.
Faster slicing in FL, Fruity Slicer, Fruity Granulizer and Edison.
Added spectral view in Fruity Slicer.
Sytrus: several speedups when triggering voices, computing & importing shapes.
Fixed crashing project browser when a mixer control was linked in omni mode.
Sytrus: slightly improved plucked string generator.
Fruity wrapper: added "Invalidate editor window" option (on by default)
Fruity wrapper: fixed bug in preset names that start with "-"
Fruity wrapper: bugfix: effect version copies input to output when no plugin is loaded
Fruity wrapper: bugfix: "fixed size buffers" option is now saved for each plugin
FPC: added popup menu for sample displays
FPC: middle-click on a sample display now opens that sample in Edison
FPC: fixed layer display after dropping a wave
FPC: fixed a crashing bug with empty layers
FPC: reimplemented resampling
FPC: re-implemented sample loading, it's now independent of FL's sample loading and loads mono and 32bit samples faster
FPC: fixed two bugs importing midi files and other minor bugfixes
ReWired: added selection of bus and channel for the ReWired channel to send its notes to (midi options window)
FL DXi: updated calculation of time information to prevent continuous resynchronizing in Sonar versions 4.04 and up
Edison: much improved spectrum display.
Sytrus: little speed & quality enhancement and now up to 256 harmonics per operator.
Sytrus: fixed rare crash when editing waveshaper envelope.
Added new stretching methods to FL & Fruity Slicer.
Added stretching tool to Edison.
Mono ASIO inputs now listed in the mixer's input list, so that you can record from mono sources.
Fixed little bug in mixer state loading.
Added 'stairs' line mode to envelope editor.
Some generators can now be threaded for some CPU gain on dual cores.
Introducing smart disable mode for generators as well.
Improved fading/declicking in Edison, Fruity Slicer and FL.
Fixed rare mixer track relocation bug.
Fixed unreleased notes when using sustain in recording mode.
Linked sustain pedal to step jump in step editing mode.
Sytrus: unison panning, volume and pitch now update running voices when automated.

Sytrus: added 'bipolar LFO tension' option to LFO's.
Sytrus: added cherry phaser filter.
Browser now previews the sample's root note.
Added more safety checks for bad wav samples.
Plugin windows & mixer can now be detached from the main window.
Fixed tiny keyboard problem with detached windows.
Added pattern clips to the playlist.
Improved zoom tool in playlist tracks.
Ctrl+right click = zoom in playlist & piano roll.
Undo for automation clips, and more meaningful undo names.
Can now turn event automation into automation clips.
Double-click pattern clips to edit its contents.
Spectrum can now be displayed in channel settings & audio clips.
Support for AIFF files in sampler channels & Edison.
Support for Apple Loops AIFF extensions.
Updated zipping DLL.
Dashboard: added "Send all values" option
Dashboard: fixed sending values of switches and patch selectors
Dashboard: updates for note off velocity support and note on velocity calculation
DirectWave: now loads AIFF samples
DirectWave: VST preset file loader in autosampler
DirectWave: lots of bugfixes
FL Keys: fixed loading of some 16bit waves
FPC: reimplemented voice and envelope processing
FPC: now loads AIFF, MP3 and REX files
FPC: now exports to SFZ format
FPC: preview notes now also trigger cut groups
FPC: fixed layer tune
FPC: allow selection of regions in a wave for start/end points
FPC: added possibility to keep current note layout when changing presets
FPC: added option to map every pad to a note one by one (per bank)
FPC: the pan envelope can't cut a voice anymore
Edison: new click-free editing.
Added 32Bit stream option to DirectSound output.
FL is now optimized for ClearType.
Fixed 2 minor glitches in PR.
Escape to abort file searching is now more responsive.
Added 'huge' to browser size modes.
Playlist clips can now be smaller.
Fixed occasional crash when assigning hardware XY controllers to params.
Assigning notes to slices made easier in Fruity Slicer plugin ("Last hit key" in menu).
Double-clicking a pattern clip opens the piano roll/event editor at the time it was clicked.
Added support for Novation ReMOTE SL controller.
New velocity & release mapping curves in the MIDI settings.
Support for note off velocity in piano roll, imported MIDI files, MIDI out & Sytrus plugins.
Sytrus: unlink velocity from volume, link velocity & release to attack & release.
New online news & events toolbar.
Fruity Slicer: can assign a slice to the last hit key.
Fixed MIDI file import bug.
Little fix in wav file loader.
Video Player: fixed time calculation for steps per beat other than 4
Wrapper: added "Save all programs" option
Wrapper: several bugfixes
Wrapper: added "MIDI Channel Aftertouch" special parameter to control aftertouch in a plugin
'Set smart disable for all effects' changed to 'Set smart disable for all plugins' (now including generators).
New Fruity Parametric EQ 2 plugin.

Fixed crash when deleting channels while project browser was open.
Fixed old bug in audio clips.
Fixed threading problem with smart disable.

6.0.8 (13/01/2006) Fixed the wrapper crashing when it receives information from a plugin that it's removing.
(bugfixes!) Fixed FPC crash when changing pad names from the Pads tab.
Fixed tempo bug in envelope controller.
Fixed bug saving adsr wheels in Envelope Controller.
Fixed decimal point bug in Formula Controller.
Little bugfix in Fruity Slicer.
Fixed wet level in Fruity Squeeze.
Tiny bugfix in sampler envelope display.
Updated ASIO host.
Updated DirectWave to version 1.03.
Updated Chrome with tester application.

6.0.4 (28/12/2005) Fixed non-working shortcut in playlist.
(bugfixes!) Fixed built-in sustain support.
Fixed crash while detecting sample tempo.
Fixed wrong reloading of sample loop type.
Fixed bug in audio clips volume envelopes.
Fixed patch selector in Dashboard.
Fixed score selection in FPC when an empty folder is selected.
Fixed bug in FPC and Fruity wrapper that caused drag and drop to stop working.
Fixed bug in Fruity Wrapper showing the selection menu when loading songs with a Waveshell plugin.
Fixed dual screen bug showing all menus on the wrong screen when the primary screen was on the right side of another screen.
Fixed bug with echo delay presets in channel settings.
Rare bug fixed in Sytrus delay line.
Fixed browser being able to be resized when docked.
Fixed mixer send knobs animated when the wrong track was selected.
Added option to disable smooth scrolling (in FL, not plugins).
Added warning when loading projects made with a more recent version of FL.
Made overload-safety feature in audio settings optional (for those who have ASIO troubles).
Fixed bug in EQUO when processing was skipped.
Middle click to load projects from browser now prompts for saving.
Fixed looping and song position in FL DXi when used in Sonar 4.0.3 or later.
Fixed rendering bug in Fruity Squeeze.
Fixed bug that caused some DXi plugins to ignore note messages.
Fixed EQ slider hint.
Fixed Fruity Fast Dist bug when rendering.
Fixed bug when moving plugin racks while event editor was open for one of their parameters.

6.0.1 (08/12/2005) **FL now compiled with Delphi 2005.**
New popup menu engine.
New scale-detecting helper in piano roll.
Multiple MIDI input devices are now accepted.
MIDI clock sync can now be sent to multiple MIDI devices.
All control events can now be edited in the piano roll.
Edited events are now stored in a most recently used list.
Piano roll now offers 16 note colors (that can be seen as MIDI channels).
Piano roll helpers also mark notes that have names (useful with Fruity Slicer).
Can now drag individual slices from the Fruity Slicer onto channels (or the explorer), and copy them to the Windows audio clipboard.
Revamped mixer with enhanced free track routing (all tracks can now be sends).

Piano kb keys now accepted in the MIDI remote control box (white = toggle, black = latch).
'New 'Link all parameters' option in plugins & mixer'
Can now move mixer tracks around.
New glue tool in piano roll, to glue contiguous notes.
Can now replace a channel type by another (was already doable through presets).
Various other enhancements in the piano roll.
Support for MIDI hold & sostenuto with result directly in piano roll.
Minor usability improvements.
Ctrl+mouse wheel to center-zoom at the mouse position in event editors, piano roll & playlist.
Improved stability/safety for ASIO devices.
Little bugfix in automation clips.
Drag/drop now works on detached playlist.
Speed improvements.
Knobs animation is now smoother (for those who can notice).
Browser revamped visually, with various little enhancements.
Browser smart search feature, allowing things like <sytrus or sims?nth or wav and "rev* bongo">.
Browser updated to remember its last state, visual drag/drop.
Browser now monitors FL's data folder to refresh itself.
Browser can show all file types & their extension.
Added browser snapshots.
Dropping a file onto the browser jumps to that file (providing it's available somewhere in the browser).
Sytrus: arpeggiator built in envelopes, audio file to envelope analyzer, envelope vertical flipping.
Sytrus: can now drag/drop single-cycle shapes onto harmonics editor, or channel button.
Sytrus: waveforms can now be saved to (32bit) WAV files.
Sytrus: enhanced waveform editing tools.
Sytrus: added 4 new filter types.
Sytrus: can now lock harmonics individually.
Sytrus: can now drag waveforms (click big waveform or ctrl+click small one) onto other synthesizers.
Small mini-piano roll update bugfix when project browser is open.
"Typing kb to piano" feature now works from the browser window as well (accel chars now only work in the tree when the feature is off).
Bugfix in level scaling event editor tool.
New EQUO automatable equalizer plugin.
New Fruity Reeverb 2 plugin.
Fruity Slicer: loading/slicing drum loops doesn't break audio engine anymore.
Live mode: song relocation is bar-synchronized.
Alt+/* and Ctrl+Alt+/* to jump to/select next/previous song markers.
Misc little enhancements: middle mouse button in browser, mouse wheel working in some new places, etc.
Added support for some more hardware controllers.
Ultrasmooth visual feedback now off by default and sets a higher smoothness, and also now applies to fruity plugins.
Playlist pattern lane gets a popup menu, and selected patterns can be renamed all at once.
Added option to split (explode) a pattern by channel.
Shift+piano roll/playlist cut tool now selects a column.
Alt+click in piano roll/playlist/event editor bypasses the current snap (very handy).

Shift+left/right or Alt+left/right shifts (nudges) selected notes in piano roll/playlist.
Bugfix in audio recording undo, and also made it clearer (tells which files are gonna be undone).
Can now edit note properties to change a note into a slide.
Added workaround for minor Windows graphic bug in the playlist.
Added CC standard names to popup in MIDI remote control box.

Shift+mouse wheel to scroll playlist, shift+right click for playback tool in piano roll, and various similar little enhancements.
Can now jump to song markers using MIDI input, and create them on the fly.
Wrappers publish 128 extra parameters for CC's, so that you can control a VSTi without using a MIDI out channel in most cases.
FL can now send MTC as well as MIDI clock for output synchronization.
Support for multimedia keyboards (play/pause/stop/prev/next/browser keys, etc).
Newbie enhancement: long audio files are not kept on disk by default anymore.
Option to save audio & MIDI clipboard data to files (see tools menu).
Double-right-click piano roll & playlist brings the options menu.
Better support for the Korg MS20 controller: cable in/out are mapped to CC to work as switches.
Enhancement for tablet PC's: most forms states are saved per screen resolution (handy when switching from landscape to portrait mode).
Enhancement for tablet PC's: stylus mode that allows easier tweaking of knobs as well as several little usability improvements for pencil use.
App includes a 128x128 icon size for application bars (ObjectDock, etc).
LAME DLL now loaded dynamically (to avoid problems when FL is used as a plugin).
Little fix for piano roll splitter losing its aspect ratio when resizing the window.
Less flicker when resizing some windows (unless detached).
New 'one-click recording' option for dummies (in the tools menu).
Added auto-map all ASIO inputs (just like outputs), to monitor all inputs.
New Fruity Squeeze sound degradation plugin.
FPC: volume and pan envelopes per pad.
FPC: pad presets and note layouts.
New Wasp XT synth plugin.
Wrappers now automatically save plugin specific settings (optional).
Video player now has an option to disable rendering audio.
New GM preset for DrumSynth Live.
Added support for Frontier Design's TranzPort controller.
Piano roll note properties can now show note lengths (optional).
Alt+mouse wheel to change note properties (of the closest note, or the selected ones) in piano roll & SHIFT+mouse wheel to move them around.
Caps lock to move notes without changing their ending times in piano roll.
More accuracy in the drawing of events in the piano roll.
Browser now shows .FNV (envelopes), .DWP (DirectWave) and .FXP/.FXB (VSTi patches).
New Fruity Envelope Controller plugin.
New DirectWave sampler plugin.
New Chrome visualization plugin.
Fruity Slicer can now export sliced sample.
New sample and preset downloader for FPC and DirectWave plugins.
Existing automation clips are now adapted when the PPQ settings have changed.
Added workaround for UAD-1 plugins to work.
Cue points are not turned into regions anymore.

5.0.2 (26/01/2005) New key limiter tool in piano roll.
New score flipper tool in piano roll.
New level scaling tool in piano roll & event editor.
Little bugfix in note legato tool.
Right-click piano roll options button for direct access to tools.
New 'Arrange windows' item to leave room for the bottom taskbar (handy under Windows XP).
Keyboard shortcuts now work for detached windows.
Updated to LAME 3.96.1.
Fixed XI file loading bug.
Added per-editor snap override.
Minor UI enhancements.
Slightly improved 'prepare for MIDI output'.
MIDI remote control window now shows a list of all controllers linked to a

parameter.

5.0.1 (20/12/04) (bugfixes!)

Fixed 'Add pitch to key' for plugins.
Fixed crashing bug in Fruity Granulizer.
Fixed 2 minor bugs in Sytrus.
Fixed problem with MIDI input in FL VSTi versions.
Fixed little problem after dismissing the piano roll note properties box.
Fixed disabled automation clips processed when relocating the song.
Disabled looping for sample preview in browser (too many bad loop points in samples out there).
Auto-scrolling doesn't switch off anymore when editing and the song is not playing.
Fixed problems with dual monitors: FL can now be maximized on second monitor and will remember the monitor it's on when maximized.
Fixed little playlist shortcut problem.
Added option to detach playlist, piano roll and event editors from the working area (can be maximized on a second monitor).
Changed the default wallpaper to a newbie one.
Newbie enhancement: MIDI settings window doesn't show up anymore to let the user select a MIDI input device.
Newbie enhancement: "Enable MIDI input/output" switches itself on when you select MIDI devices.

5.0 (20/11/04)

New automation clips in playlist.
New powerful arpeggiator tool in piano roll.
New Fruity WaveShaper effect plugin.
New option to render audio files with slice markers (regions) built-in (regions are defined as beat markers for Adobe Audition).
Fruity Slicer now gets slices from audio file cue points as well (as well as trigger key #).
Much improved Fruity Slicer, with stretching and REX loops support, and enhanced fill gaps.
New 'make unique' option for audio clips to sever parts.
New time-stretching and pitch-shifting in audio tracks (with several modes, including the Elastique engine).
Tempo-synced preview of stretched samples.
Added author & genre to song properties, saved inside WAV files and MP3 tags.
Added tempo detector to audio tracks to align project tempo to song clips.
New drum flam tool in piano roll.
DrumSynth Live now supports 120 patches.
Enhanced Fruity Granulizer with transient-alignment and new skin.
Audio recording can now be undone, and mixer track arming button can be right-clicked not to prompt for a filename.
Added note legato and articulation tool in piano roll.
Basic loop recording.
Added tempo tapping feature.
New FPC drumkit plugin.
New Collab tool to work on shared projects.
Added better automation smoothing to MIDI remote control (knob works as 1 pole or 3 poles).
Can now load MP3's into sampler channels and audio clips.
Setting for steps per beat now adjust tempo as well (no need for tempo-doubling tricks anymore).
Fruity Slicer note dumping is now done in piano roll selection (if any).
New slicing engine in Fruity Slicer and FL (audio clips).
Stacked notes in piano roll randomizer now work better.
Made brush default tool in event editor.
Little bugfix for monophonic mode in step sequencer.
Restyled Fruity HTML NoteBook plugin.

Background wallpaper can now be HTML pages.
Bugfix in Sytrus (making it a little faster).
Added copy/paste preset to Sytrus, to share presets between all plugin versions of it.
Added global envelope mode to Sytrus (version 1.2), for perfect gated presets.
Fixed crash when deleting MIDI out channels sometimes.
Song markers now properly stored in rendered waves even with tempo changes.
Fixed memory leak in Fruity Slicer plugin.
Updated drum list in the MIDI out plugin to the GM2 standard.
Made channel resampling option always enabled.
'Keep on disk' samples can now be modified (loaded from disk when needed).
Can now check 'keep on disk', 'resample' & other options even when not possible.
Newbie enhancement: snapping is off by default.
Can now drop samples onto the channel settings window.
Preview now only loads the few first seconds (for MP3's to preview faster).
XY controller now supports multiple joysticks.
Right-clicking the recording disk to arm a mixer track won't prompt for a filename.
Added option not to auto-unarm mixer tracks.
Selecting an ASIO input now arms the mixer track automatically.
Added option to trim audio clip parts outside playlist selection.
Auto-envelope cleaning in step edit mode in Sytrus & Fruity Waveshaper envelopes.
Remove transposing from quantization tool - quantization scores can now safely contain notes other than C5.
Toolbars can now be locked.
Replace 'Ignore velocity' option by 'Velocity link', to control per-note filter using velocity.
Can now shift+click note events to unselect them.
Can now set one of the external audio editors to replace the default one.
Added support for Hercules DJ Console (when set in MIDI mode, endless knobs, coupled switches, special switches & middle jog work).
Added sampler interpolation method selector for realtime playback (audio settings).
Removed obsolete 1..9 pattern selector.
FST and FSC file extensions are now associated with the app (and loaded in new channels).
Auto-scrolling switch now in the main part of the UI, and auto-disabled.
Song selection now shown in the transport slider as well.
Minor cosmetic changes and new wallpapers.
Shift disables 'typing keyboard to piano' feature, handy to access shortcuts such as R for record.
BkSp shortcut for quick snap switch.
Fixed problem with incoming MIDI note off messages too quickly after note on.
Minor fix in Fruity Vocoder.
Removed (abused) live loop, in favor of Collab.

4.5.2 (4/03/04)

Upgraded plugin menus: easier way to browse/automate parameters.
Added 3 band equalizer and soft mode option in Sytrus.
Added option to use mixer position as playback position, for those who have crappy sound drivers and experience jerky playback cursors.
Small bugfix in event editor zoom/select.
Small bugfix in effect preset selector.
Bugfix in Sytrus (was unstable).
Little glitch fix in Sytrus.
Changed scale for harmonics level editing in Sytrus.
Fixed problem with some ZIP files not created (really this time).
Small bugfix in automation recording.
Fixed arp/slide last bugs (I hope).
Fixed tiny visual glitch in browser.
Notes in step seq now restricted to the channel's keyzone.
Added repeat mode to arpeggiator.

Sytrus presets are now compressed (was needed for the VSTi version).

4.5.1 (29/12/03)
New Sytrus generator!
New 'auto' mode in arpeggiator (finally works like a classic arp now).
New playback function in piano roll.
New strum tool in piano roll.
New Fruity Flangus effect plugin.
New ReWire (host & client) support.
Playlist / piano roll selection now updated when changing PPQ.
Added ASIO clock source selector (for compatibility with the Tascam US-122)
Added ASIO CPU check for more stability (prevents freezing GUI).
Removed the obsolete 'tiny slices' rendering setting & improved rendering.
Added beep metronome sound.
Bugfix in Fruity Slicer plugin.
Bugfix in channel grouping while loading songs.
Little bugfix in playlist.
Little bugfix in preset switching.

4.5 (3/11/03)
(boxed release)
Bugfix in FL Keys & dashboard plugins.
Added support for the Edirol PCR-30/50 controllers (see \System\Hardware specific).
Little bugfix in layer loading.
Little bugfix in automation smoothing.
Added warning when saving to a protected MIDI file.
Inserting space in playlist now moves markers as well.
Editing playlist markers is now undoable.
Bugfix in 'zoom on selection' in piano roll.
Alt+click to default note levels in piano roll.
Small bugfix in PPQ changing.
Bugfix in playback indicators in piano roll.
New free Slayer & FL Keys plugins (actually were in 4.1.2).
Improvement: arpeggiator now works fine with short single-hits.
Don't ask why it's a 4.5 version already :)

4.1.2 (1/07/03)
Added automation smoothing feature.
Added Fruity Keyboard Controller plugin.
New undo history in project browser.
Added 'insert/delete space' in playlist, piano roll & event editor.
Now showing plugins & their parameters in the project browser.
Added output visual to Fruity Formula Controller plugin.
Improved internal controller handling.
Improved pattern merging.
Fixed rare automation problem.
Fixed handling of special audio input format.
Event editor LFO tool can now be canceled.
Bugfix in MIDI file import for controllers.
Small bugfix in Boobass plugin.
Sampler channels now load 24 Bit integer wave files.
Fixed small bug in Fruity Slicer.
Fixed small weird bug in plugins.
Fixed sampler channel filters consistency across sample rates. Projects not made at 44100 Hz might sound a little different!
Small fix in Fruity Parametric EQ at 22000 Hz.
Small fix in filter for Fruity Delay 2.
Small visual fix in Fruity Slicer.
Bugfix in Fruity Phaser plugin.
DS script loading bug (on some systems) finally fixed.

4.1.0 (7/04/03)
(bugfixes!)
Many bugfixes.
New cool (and free) vocoder plugin!
Added CTRL+N shortcut for 'Save new version'.

Added 'Link selected channels -> Starting from this track' to easily auto-assign mixer tracks to existing channels.

4.0 (5/03/03) (FL Studio)

Brand new playlist.
FX window becomes a mixer.
Audio clips can now be added to the playlist.
Fruity Slicer now auto-slices without the need for a registered BeatSlicer. Same for the 'File->Import->Beat to slice' feature.
Added audio input (ASIO only) to the mixer.
Added direct-to-disk recording & offline rendering of mixer tracks.
FL Studio now available as a DXi plugin (FL Studio DXi, FL Studio VSTi, 1 & 16 out versions).
New Wave Traveller generator plugin.
New BooBass generator plugin.
Revamped randomizer, now also available in piano roll.
New integrated wave editor for channel samples.
Fixed minor TS404 preset problem.
New cutting tool to piano roll & playlist.
Small bugfix in SimSynth Live.
Mixer now has 64 insert tracks.
Mixer tracks can route to other mixer tracks, allowing groups & sub-groups.
Effects now have automated mute & mix level.
Can now save mixer track presets.
Patterns can now have different lengths.
Can now set pattern color.
New black note display mode in piano roll.
New brush mode in playlist and piano roll.
New time scaling in piano roll (hold shift & resize notes).
Various improvements in piano roll.
Right-clicking the mini piano roll jumps to the clicked position.
New time markers in playlist (numpad . to jump to the next one).
Time markers are saved in rendered waves as cue points.
Reworked & added some new artwork.
Fixed small bug in envelope display.
Fixed small bug in event editor line tool.
Fixed MIDI sync output device not remembered.
MIDI sync device is now shared with MIDI output devices.
Can now record in song mode into a pattern that hasn't been triggered (pattern is then added to the playlist).
Can open the project browser from the playlist.
Added some 3DNow! optimization (Fruity Parametric EQ & various internal things now 2x faster on AMD's).
Added graph in remote control mapping window.
Fixed precomputed effects at other sample rates.
Fixed FX send automation bug.
Added phase randomness option to 3xOsc plugin.
Added autoscrolling in playlist.
Added some usability improvements.
Omni mode also works for mixer in remote control window.
Changed the way some plugins work with timers.
Can now set the track in which preview & metronome are mixed.
Fixed bug with GDI in browser.
Fixed window visibility bug.
Added live mode to playlist.
Fixed invalid automation problem after loading presets over a TS404 channel.
Fixed rare bug with event editor's line tool.
Slightly updated look of the Fruity Slicer.
Old precomputed effects are now hidden by default.
Rendered wave files now have loop points, useful when rendering using the leave remainder option.
'Save modified sample as...' now saves loop points.

Audio clips can be chopped up into regions (cue points stored in wave files or slices stored in ZGR's).
Pattern cloning now clones automation.
Fixed GDI leak in Fruity NoteBook.
Updated LAME mp3 encoder to version 3.93.1.
Various bugfixes in FL VSTi.
Support for multi out VSTi plugins (generators only).
New wave editor.
Small improvement in BeepMap plugin.
Step sequencer editing is now undoable.
Fixed rare note-dragging crash in piano roll.
Fixed glitch in sampler channels.

3.5.6 (29/07/02)
(more bugfixes!)

Support for Tascam US-428 controller.
Formula in MIDI remote control box can now modify increment step (for endless knobs).
Can now select rows of notes in piano roll.
Added 'fit to time' option to Fruity Granulizer.
Fixed weird rare automation bug.
Improved wrappers & fixed timing info.
Added 'pausing steps' in some knobs & sliders.
New user interface for SimSynth Live.
VSTi version now renders properly in Cubase.
New clock toolbar.
Changed tempo & pattern selectors.
Fixed Wasp's envelope link problem.
Fixed small playlist selection bug.
Fixed various minor bugs.

3.5.5 (4/07/02)
(bugfixes!)

Bugfixed DrumSynth Live.
Time hint in step sequencer.
Added support for Peavey StudioMix controller (knobs, sliders, switches & jog).
Added support for StudioMix switches.
Added support for 'endless' hardware controllers (Doepfer Pocket Dial).
Setup now warns about logging as administrator.
Various other bugfixes.
Formula presets in MIDI remote control box.

3.5.4 (19/06/02)

Can now copy, paste, save & restore automation.
FruityLoops now available as a VSTi plugin.
Multi ASIO output added.
New advanced quantization in piano roll.
New advanced pattern-based chopper in piano roll.
Improved channel envelopes (tension).
Added batch export of FX tracks into separate wave files.
New Fruity fast dist plugin (same dist as for the TS404).
New Fruity soft clipper plugin.
Improved Fruity slicer plugin (added 'fill gaps' option & slice reversing).
Improved global beat slicing (layering).
Improved Fruity wrapper plugins.
Added recording precount.
Support for speech synthesis (.speech files).
Added sample start to Fruity Granulizer plugin.
New step edit mode.
Much improved (but not compatible) TS404.
Fruity wrappers now support DXi2 plugins.
New kick synthesizer plugin.
Improved (but slower) sinc interpolation (thx to arguru).
Improved hermite interpolation (now 6 points) (thx to Yehar).
Right click metronome for another tick sound.
Right click wait for input to allow it only when recording.

MIDI activity LED now blinks yellow if the MIDI message wasn't handled (assigned to nothing).
Master sync now sends MIDI continue message instead of MIDI start.
Time in seconds now displayed by the playlist in the hint bar.
Project bones now includes automation as well.
Fine time offset knob now automatable (can now do shuffle using internal controllers).
Peak meters optionally in dB format (see general settings).
Tiny bugfix in envelope processing.
MIDI out plugin now supports channel aftertouch (& also redesigned visually).
Removed unuseful auto maximize & stop at bottom options.
MIDI remote control window redesigned a little.
Added quick preset randomizing & hybridize mode for plugins.
Slightly improved pattern humanizer.
Fruity soundfont player now searches for the first valid patch after a soundfont is loaded.
Added 'explore' menu item to browser.
Added 'Select linked channels' option & FX track renaming (effects window).
Bugfix in soundfont player & improved HQ rendering.
Bugfix in echo delay combined with the time shift.
Bugfixes in Fruity Reeverb (now works fine at any mixing rate).
Small bugfix in channel muting.
Small bugfix in layer channels.
Small bugfix in Fruity slicer (sample rate conversion).
Small bugfix in step seq vol knob's gauge.
Color=$BBGGRR now recognized in browser info files.
Fixed two bad memory leaks.
Bugfix in DrumSynth patch loader.
Improved step sequencer.
Mouse wheel now scrolls step seq keyboard edit.

3.4.0 (19/12/01) **Added fat mode to channels (echo delay tab).**
New input to output mapping formula in remote control linking.
Added Fruity formula (internal) controller plugin.
New Export->Project bones (exports all channel & effect presets + scores, to merge projects easier).
Introducing channel filtering for easier reading of the step sequencer.
Introducing layer channels, to control several channels at once.
Fixed the freezing on some systems with the MIDI output enabled.
Added activity meter to channels.
New Fruity chorus plugin.
New Fruity DX10 & SoundFont player plugins.
Can now move patterns (or blocks of patterns) up/down (see playlist menu).
New 'save new version' option.
Note properties editing in the piano roll now works only for selected notes, if any.
View all channels (ghost) mode in piano roll.
Added vertical zoom in event editor.
Added tempo fine tuning (song settings).
Relooked testing kb, now with visual feedback & layer key zones.
Removed 'shuffled' option in channel's echo delay.
Added 'Play to end' option to Fruity slicer plugin.
Arpeggiator time to max = holding.
Added 'add root note to key' feature (useful for Fruity slicer & Fruity soundfont player).
Fixed patch not restored by the MIDI out.
Fixed last MIDI device not working for MIDI output sync.
Samples with loop points stored in wrong order are now loaded properly.
Little startup things are now set to better default values.
Removed raster visual effect in event editor.
Removed random association, replaced by the channel layering, better but incompatible.

Channel aftertouch now mapped to #253 in MIDI input mapping (key aftertouch=#254, pitch bend=#255).

3.3.0 (16/10/01)

Multiple MIDI devices can now be controlled at once.
Introducing internal controllers.
New Fruity stereo enhancer plugin.
New Fruity delay 2 plugin.
Added 2 FX send tracks & up to 8 plugins per track.
Better plugin lister, now verifies & sorts plugins.
New, rather accurate, global (multichannel) MIDI file import.
Added portamento to all channels.
Added velocity & kb tracking to all channels.
Added ASIO output (no multichannel output, will be done, don't ask).
Fruity wrapper can now read *.FXB files.
Added portamento's in step sequencer & per-channel gating.
Added Fruity Slicer, Fruity Granulizer, Fruity Big Clock, Fruity dB meter plugins.
Added Buzz machines wrapper (generator & effect) plugins.
Added levels adjustment per channel, for easier automation & preamp.
Added pitch per note in the piano roll.
Effect plugins can now be named.
Changed knobs popup menu (added 'Copy value' & 'Paste value')
Got rid of the 'filenames with spaces in them loaded as several files' problem.
Improved sample view in channel settings.
Bugfix in plugins custom shapes.
Fixed minor bug in FX sends.
Remote control mapping now updated when modules change.
Remote control mapping now saved in FLP's, not as a general config anymore.
Bugfix in channel FX track # automation.
Bugfix in channel settings repaint (very rare & harmless bug).
Fixed thing in levels ramping (rendering with 'tiny slices' on is now perfect).
Added a wallpaper (Title.jpg).
Minor bugfix in mixer.
Removed Export->Click marked samples option (hello alt+s freaks).
Fixed rare bug in mixer.
Fruity plugins own data can now be collected & included in zipped loops.
Small bugfix in plugin preset selector.
Added a couple of new 3xOsc presets.
Fixed some disappearing cursor problems.
Fixed bug in sampler channels envelopes & MIDI remote control.
Note properties box now also works on selected notes in piano roll.
Added features to the 3xOsc.
Added automatable gate time in channels (FUNC tab, mainly for the step seq).
Little bugfix in volume envelope attack.
In pattern mode, the whole pattern is now rendered, not just the first bar.
Remote control mapping now listed in the project browser.
New, better set of fonts.
Updated LAME mp3 encoder to version 3.89.
New bug fixed Fruity Scratcher, WASP & Fruity phaser plugins.
Fruity Spectroman can now display in stereo.

3.1.1 (3/05/01)

Bugfix in song relocation.
Small bugfix in project browser.
Small bugfix in 'Go to next empty pattern'.
Added Fruity LSD & Fruity Spectroman plugins (reg. only).
Added log decay switch to envelopes.
Changed sliders a bit.
Updated Fruity plug SDK.

3.1.0 (11/09/02)
(boxed version)

Project (automation) browser.
Now supporting DXi plugins!

Piano roll data can now be copied from the step sequencer.
Added 'Init with current position' in event editor.
Added right click on snap selector for stock note lengths.
Fixed Jedi mode :) disappearing mouse cursor problem.
Wrapped VST plugins now save their state into chunks (useful for the BS-1).
Bugfix in Fruity Mute 2.
Harmless bug when closing 2 event editors at once fixed.
Removed background wallpaper centering.
Favorites now available to channels as well.
MIDI input now handles start / stop / continue messages.
Added (dirty) workaround for taskbar covering problem.
Cyrix problem finally fixed!
Minor bugfixes.
Added project uploading feature.
New user-made MIDI out presets.
Turned auto snap into auto smoothing in event editor.

3.0.1 (26/02/01) **Arpeggiator for each channel.**
Exporting to MIDI file now works.
Small bugfix in mixer & pattern playing.
Effect version of Fruity wrapper plugin now properly listed.
Minor bugfix in channel's edit menu.
Bugfix in closing piano roll.
Minor bugfix in MIDI out plugin.
Various bugfixes in wav renderer (can now render a playlist selection properly).
New user-made MIDI out presets.
Improved dropping of audio tracks into the playlist.
Improved auto channel naming.
Introducing *.FSC FruityLoops score (piano roll) presets.
Minimized mode in piano roll.
MIDI files now appear in the browser (to be dropped onto piano rolls) as well.
Plucked! & 3xOsc plugins now support custom shapes.
Pattern (visual) length now saved in projects.
Various other improvements.

3.0.0 (25/01/01) **New layout.**
Piano roll.
Event track now per pattern.
New FX tracks (now 16 inserts + 2 sends)
Centered views for some controllers in event editor.
Optimized song positioning.
Typing keyboard to MIDI option.
Added metronome.
Updated to new DrumSynth renderer.
Added custom controls for DrumSynth presets.
Channel mute switch & FX track # are now automated.
MIDI controllers can now control several channels at once.
Fixed syncing problem.
New MIDI output plugin & much better MIDI support.
New plugin system (effects & generators).
New plugins: 3x Osc, BeepMap (image synth), Fruity PanOMatic, Fruity NoteBook, MIDI out, etc.
Slight optimization in TS404.
Added MIDI kb to mute/solo mapping.
Peak meter now shows clipping.
Knobs should work better under Win2k.
Added new filter types.
New, better pattern randomizer.
Fixed ugliness with system fonts set to large.
Added 'smart disable' feature in effects.
Added antialiasing to TS404 (rendering only).

Much more...

2.7.1 (25/09/00) **Small bugfix release:**
Fixed problem with some Win2k configs & registration.
Fixed small problem with multiple monitors (again).
Fixed little bug in TS404 starting note.
Fixed minor bug in event editor.
Fixed right click on loop icon in playlist.
Fixed minor visual bug in title bars.
Fixed minor bug in sample display.
Fixed bug in playlist hint.
Bug in 3DFX display drivers avoided (they've fixed it too).
Improved Fruity Reeverb plugin (no more slowing down).
Much faster sample locating.
Added Fruity phaser plugin by Smart Electron:x.

2.7.0 (22/07/00) **LP x2 filter added to channels.**
Global channel LFO added, handy for basslines.
Beatslicer standalone editor added.
Alternate B-splines interpolator in event editor (right click).
Snap mode (with interpolation) in event editor.
Added presets to envelope time wheels.
Added a couple of great instrument presets.
Added dithering to 16 Bit option (rendering only).
Improved SS2 preset renderer.
Updated LAME mp3 encoder to version 3.84
Surround effect removed, added 'Fruity phase inverter' to replace it.
Fruity Fast LP plugin added (the main filter will disappear in a future release).
ZIP & RBS ext added to sample browser, & FLP's are shown in all folders.
Fixed envelope LFO shape not saved in FLP's.
Bugfix & slight optimization in TS404.
Had to remove bitmaps from song info edit, too much buggy :(
Bugfix in filter section (was always on... eating unneeded CPU).
Fixed 2 bugs in TS404 preset loading.
Bugfix in pattern rendering when playlist has a selection.
Bugfix in main oscilloscope.
Fixed random association not saved properly.
Added 'Don't limit windows to screen' option for multi monitor support.
More safety checks for 'altered project' flag.
Graphic engine changed, now eats a lot less graphic resources.

2.5.4 (6/05/00) **Added LP, BP, HP & Notch to channel filter.**
Support for plugin presets (sample browser).
Bugfix in sample loading.
Wide skin script fixed.
Fixed filter bitmap in TS404 interface.
Better (typing) kb mapping for testing (channel settings kb).
Updated LAME mp3 encoder to version 3.70
Fixed linking of envelope wheels to MIDI controller.
Improved SimSynth 2 renderer DLL.
New instrument patches by BSB.
Win2k compatibility: RichEdit crash fixed, selector display fixed.
Fixed fine tuning not saved in FLP's.
Fixed recorded sample saving.
Fixed big samples always set as keep on disk samples.
Fixed old bug in playlist.
Fixed bug in sampler envelopes.
New SimSynth 2.7 patches! (/SS2_Extra/2.7)
New humanize presets.

2.5.0 (13/04/00) **Full envelopes & LFO (pan, vol, filter & pitch)!**

New *.FST 'channel state' files (instruments - replaces *.404 files).
New design for the TS404 (also added triangle LFO shape).
Tempo is now sample-accurate (useful when you render a lot of bars).
Channel settings window redesigned.
Partial import of ReBirth 338 song files.
New impressive reverb plugin by Ultrafunk.
Fixed bug in rendering of TS404 (distortion).
Fixed bugs in ZIP export.
Minor bugfix in changing PPQ.
Timing is all new inside & more accurate.
Rendering changed & bugfixed (tempo changes).
DirectX filters support updated.
Added 'live loop'.
Auto stretch follows tempo changes.
Old crap trashed out: mix feature (graph edit) & vol/pan/pitch/mix wheels.
FX in the graph edit reordered.
Fixed small problem in level ramping.
Echo delay now linked to the channel.
Added presets to event editor LFO (speed wheel popup).
Now TS404 sustain max = infinite.
User skins will have to be slightly adjusted to work with this release.
Minor bugfix in pattern editor.
Fixed rare click problem with resonant filter.
Fixed crash when setting tool launched at startup with channel sample.
Added sinc interpolation (very slow - rendering only) because cubic is sometimes noisy.
Now 1000 bars in playlist.
Rearranged plugins list (too many on screen) + favorites.
Background process for long renderings.
Added keep on disk samples.
Added option not to resample waves (better for looped stuff).
Added support for pyramid panning shape (circular is good but can generate clipping).
Added 'keep notes continuous' tool (handy for TS404 without gate).
Fixed rare crash with channel settings form & channel cloning.
Added handy 'clone pattern' macro (tools).
Mapped key aftertouch into controller 254.
Pitch bend now supported.
Removed click removal option (always on).
Filter now automated.
Graph edit now allows offset of the filter.
Added precalc DC offset removal.
Now renders playlist selection, if any.
Can now re-read the sample browser without collapsing everything.
Improved beat slicing (merging, shifting all the notes, checking for 'groups').

2.1.1 (19/01/00)
Now using the LAME MP3 encoder for the best quality!
Tempo changes now recorded too (with some limitations).
Added LFO tool in event editor.
Can now slice up beats thx to the BeatSlicer engine.
Fixed minor visual bug in event editor.
More space around wheels (TS404 & VST plugins) not to miss them anymore.
Pattern autoscroll now optional.
Event editor enhanced.
Random tool now affects notes & slides for TS404 channels.
Fixed bug with the piano kb & TS404 user shapes.
Fixed something with TS404 & patterns.
Fixed bug with channel mix/random.
Fixed click bug in fake surround effect.
Fixed bug in VST plugins handling.
Fixed note range in TS404 (some notes were clipped).

Prevents nasty slow FPU denormalization also in TS404 delay line & volume ramping.
Redesigned humanize box.
Removed 'update on each n ticks' option (I had to).
Better distortion on the TS404 when rendering (too slow).
Changed limitations of demo version.
Added about box to Fruity plugins.
Added 'Fruity center' plugin.
Switched default ticks per beat (PPQ) to 96.
Switched most time values (shift, delay) to a 192 PPQ accuracy.
Mapped pitch bend into controller 255 for remote controlling.
Main cutoff now ramped.
Fixed small bug in window arrangement.
Fixed slave sync bug.
Fixed small bug in wav looping.
Improved support for DirectX filters.

2.0.1 (21/11/99) Problem with background wallpaper covering some windows fixed. Also redraws smoother.
Crash with default skin in palettized mode fixed.
Scrollbars can be moved another way (right click).
Support for middle mouse button (to reset wheels & scroll windows).
Added FLP file format description (beta).
Added plugin editors in view menu.
Added 'arrange windows' in view menu.
Removed the 'auto arrange windows' option in settings.
Removed 'insert pattern in playlist' (not useful).
Internal sync has changed a lot & visuals are smoother.
Can now drop sound files on the playlist (very quick for effects on a song).
No more flicker on some controls.
Basic MIDI input added (see ReadMe.doc).
Added record button, mainly for keyboard input for now.
Autoscroll patterns when playing.
Added new tips, read them!
Can now move channels up/down.
Main resonance filter now applied after the master plugins (better).
Can now render to 32 Bit float wavs (for use in CoolEdit Pro).
Song settings separated from environment settings (more logical).
Right click a FX track button to pop up the list of plugins.
New default basic drumkit (Club basic).
No more pattern & playlist clipboards filled at the same time to avoid mistakes.
Added 'captionnizing' to event editor.
Now supports DirectX plugins (crashes to be expected:).
Added 'Twice slower' in the tempo menu, for easier recordings.
Added pan wheels to the main window.
Scans VST plugs in both user & Fruity directories.
TS404 LFO now adjusted correctly when changing song position.
Added balance custom plugin.
Added FruityPro /Reset to make a config reset in case you're in trouble.
Put the check for another instance back (this time only when there's a command line param) (hope crashes won't be reported this time).
Added 'Open with FruityLoops' in popup menu associated with FLP files.
Fixed small bug in my use of the TS404.
TS404 rewritten internally, using floats, no more clipping & more stable filter. Even slightly faster. User shape is back.
Adjusted range of the filter in the TS404.
Adjusted the range of all the resonance filters.
Rearranged main sliders.
Fixed glitch in cubic interpolation.
Skins now in /Skins subdir. No need to move your old ones, they're not compatible anyway.

Main, channel & delay line pan/volume tweakings interpolated to avoid pops.
Channel volume can now be tweaked on the fly (needed for the live recording).
MIDI remote controlling of most controls!
Removed 'ahead duration' mixer setting & added polling & hardware buffer settings for down to a 5ms latency on a SB Live!
Finished new playlist look! (still same features for now)
FX tracks redesigned, now up to 8 tracks available.
Live recording!
Integrated event editor!
Option for more realistic logarithmic levels (song settings).

1.7.6 (bugfixes!)

small visual bugfixes.
Prob with SimSynth note fixed.
Prob when mixing 2 TS404 fixed.
Prob with dots window fixed.
Prob with saving of wav files fixed.
Bugfix in scope.
Bugfix in the disk renderer.
Internal sync small bugfix.
Replaced SHIFT by G to pop up the graph edit (I had to free SHIFT for shortcuts).
Some shortcuts changed/added (SHIFT instead of ALT for shifting left/right, shortcut for Save as...).
Now renders Acidized wav files.
Added clone option to the channel pop up too.
Added cool (but slow) light show (not totally finished).
Added export to MP3 thx to BladeEnc.
Can now load SimSynth 2 presets thx to David Billen.
Extended params for SimSynth 2 presets (riff, tempo).
Installer now adds shortcut icon & stuff.
Keyboard auto scroll when notes are out of range (auto centering would not be a good idea).
Added 'auto zip empty channels' (general settings) for those who prefer to work this way.
Problem with last opened projects menu fixed.
Adjustable fade out (when cut) for better strings.
Added note fine tuning for samples which don't match.
Added 'Go to next empty pattern' tool.
Added 'Select unused channels' tool (to delete them to clean up your song).
Added useful 'insert & remove pattern' tools.
No more preview on right click in the sample browser (was annoying).
Plugin wheels now have a default value.
More minor enhancements.
Added ping pong delay.
Added favorites to more dialogs (useful when exporting to wave file).
Fine tuning is read from WAV files (middle note isn't - too many C4 by default where it should be C5).
Added 'Hermite curve' interpolation (even better than linear) on stretching for sample loading & rendering (too slow for real time).
Improved sample locating (as Sam wanted).
Main volume can be raised to 125%.
VST plugins which have their own editor no longer have built-in wheels. Many are badly written & some crash because of this...
FX3 is now interpolated (much less noisy).
Middle mouse button used to reset wheels.

1.6.5 (20/06/99)

Added support for SimSynth files.
Can also set the middle note of SimSynth files.
Added 4 effect tracks (+master) supporting up to 4 plugins each.
Now support all plugins type.

Plugin stuff saved inside the FLP.
Now eats less Windows graphic resources.
Note deletion (right click) bugfix.
Prob with background picture fixed.
Probs with Win98 fixed: the RTF format has slightly changed in Win98 & caused crash problems!
'Reload sample' bugfix.
More checks for 'bad' wavs (there are).
Some more minor bugfixes.
Can now drop TS404 presets to create TS404 channels.
Inverted the shuffle slider (more logical).
Basic pack now included in the install package.
Added 'shift delay' to the graph edit.
Added graph edit presets in the sample browser (text files to edit manually for now).

1.5.23 (3/05/99)
Changed stuff in the main menu.
Minor visual bugfix.
Ping pong loop available even when not looped.
Added stuff in the channel settings sample menu.
Added the recording box.
Removed the check for another instance (crash reports).
Added the TS404 beta!
New cool splash screen.
Added background tiled bitmap.
Added cool 'shade' scope mode.
No more temp directory (uses the windows\temp instead).
Added zip/unzip support for samples & FLP in one single ZIP package.
Support for more extra sample directories. Also try to locate missing samples in these dirs.
Added clone channel option.
Added true delay line for the TS404.
Remove mute checkbox in the channel settings (not useful).
TS404 presets in the sample browser.
Can now act as master clock for sync! (read the ReadMe.doc file for limitations). Sends start / stop / clock / SPP. Should also follow tempo changes.
Added sync delay too.
Removed the channel settings unuseful pan & vol menus.
Use of devices cleaned a bit. MIDI not opened if disabled. DirectSound not opened if disabled.
Changed the mixer engine from 32 bit int to 32 bit floats. Shouldn't alter the sound in any way. Even faster (maybe unless you've got an AMD processor).
Removed support for WinAMP DSP plugins (they're all shit).
Playlist now starts from 1 instead of 0 (nicer).
VST plugins support beta.
Channel settings form shown unactivated to avoid mistakes.

1.4.3 (13/03/99)
Minor bugfix in loop files from sample browser.
Rendering & click removal bugfix.

1.4.2 (9/03/99)
Default values for all sliders (right click).
Max tempo raised to 999 (don't tell me you need more).
Added cut/copy/paste in the playlist.
Added pattern naming (right click the top row in the playlist).
Removed the loop selection & replaced it by looping the cut/copy selection.
Looped strings (using loop points defined inside the WAV file).
Better 'stop at screen bottom' (takes care of the task bar).
Added handy 'Always full height' option.
Added translation (for DSC) (French & Dutch).
Tips made external (translation).
Removed unuseful 'Export loop to clipboard' (now exports according to the loop

state).
Now looks a bit better under weird Windows color schemes.
Auto stretch now up to 512 (but not compatible with old versions of FL).
Auto detects email in URL box.
Nasty click removal (have a low bass cutting itself to see the difference).
Added FastTracker 2 XI instruments support (import only).
DS & XI files now in sample browser too.
Wide skin now for reg. only :(
Alt+click on knobs for quick note off (for strings) (just set volume to zero).
Changed the wheels to flat wheels in the default skin.

1.4.0 (16/12/98) Last rendered wav path bug corrected.
Added stereo & 'flower' scope (right click the scope).
Small bug in the piano keyboard corrected.
Linked windows (sample list window, piano window) move smoother.
Little anim on the sample browser.
Bugfix in auto stretch & ending silence trimming (sorry for incompatibilities).
Added precalc reverb.
Added loops in the sample browser.
Bugfix in the loop info stuff (!@#! RichEdit control).
'crash on exit' bugfix.
Scope crash bugfix.
Dynamic sample browser (faster).
Another bugfix again (when loading old loops).
MultiPlugin crash bugfix (but still a prob here).
DrumSynth DS files support.
Added tools to the 'sample scope' popup menu (so you can edit DS files directly with DrumSynth).
Added 'repeat block length' (just visual).
ALT+click on a wheel to reset it.
Zipped channels bugfix.
Added 256 colors warning message.
Added some tips.
Finally up to 64 notes per pattern.
Patterns take less memory (but who cares).
Added 'Fill each x notes' to channel menu.
The prog now takes a bit less graphic resources (but still too much).

1.3.8 (27/10/98) Added quick 'Load sample...' in the channel context menu.
Added a small starting 4 channels kit in the package.
Added auto-scroll to the selected channel (arrow keys).
Main window never goes below screen bottom.
Math copro related bugfix.
Drag/drop small bugfix.
Added background wallpaper (for those who don't like to have the desktop behind).
Loop selection in the playlist (right click+drag down).
More hints on the wheels (numeric value).
Faster stretching.
Added linear interpolation to realtime stretching (optional).
Added interpolation to imported wave files under 44Khz.
Output scope has a faster response.
Added 'Big Scope' skin.
Saves *.nfo file on rendering (for FruityTracks/DMM).
Added quick 'copy whole pattern'.
Added drumkits.
More compatibility with compressed wav formats (ADPCM & mu-LAW can now be loaded using the installed ACM codecs several times).
Save modified sample (right click the scope in the channel settings).
Can now render to mono.
Finally added pattern length (set globally).

Added integrated FastWAV-like sample browser (CTRL+B).
Changed the ugly Windows scrollbar.

1.3.72 (01/09/98) Checks for another instance & asks to have it closed.
MIDI tempo now updated when synchronized.
Another (old) MIDI related bug corrected.

1.3.67 (28/08/98) Bug in the MIDI rendering/export corrected.

1.3.66 (26/08/98) Avoid old ComCtl32.DLL bug by loading bullets & slider knobs externally.
Added 'shift delay' trick so that 32nd notes can be achieved (using another channel).

FruityLoops Pro Stretching now in realtime.
1.3.56 (01/08/98) Pitch for each dot added.
Added bottom status/resize bar.
Edit mode buttons added (Pan/vol & Keyboard modes).
Main pitch slider added.
Old way to set dot volume removed.
Added channel selection.
Added piano keyboard.
Added graph edit.
Humanize on pitch & mix.
Script to customize the skin (colors, holes & positions).
CTRL+left click on any set button for a quick preview of the sample.
Added a BW skin that looks good & works almost well with palettized systems.
CTRL to transpose (keyboard mode).
Dots window added.
Shows CPU usage (sample settings).
Replaced the old echo by a useful one.
Inverted the pattern numpad to match the keyboard one.
Preview in wave open dialog.
The selected channel gets the sample directly from FastWAV (double click).
PlayList window can now be resized. Also the /* keys change the playing pattern.
Dot pan, dot note, mix effect & random now work with MIDI too.
Corrected bug in the precalc resonant filter.
New playlist that allows multiple patterns at the same time.
Stereo delay & phaser effect added.
Wider range for the delay volume wheel.
Auto trim silence at the end of samples not to have to mix it (faster).
Realtime resonant filter added.
Starting sound.
Various bugs corrected.

1.2.13 (not released) Attack added.
Favorites in wave open dialog.
MIDI bank selection stuff corrected.
Added MIDI controller settings.
Auto-close FastWAV.

1.2.12 (01/06/98) Bug that caused the echo to cut the sample itself corrected.
Added Ins/Del buttons in playlist. Also right clicking on the left part selects the pattern too.
Bug with the 6 numeric key sending minus corrected.
Added preamp & decay precalc effects.
Sample settings window rearranged.
MP3 decoding added then removed (see below)...

1.2.11 (20/05/98) WinAMP DSP plugins support (registered only).
Unregistered version now limited to 4 channels.
Humanize now in percents.

Panning for each dot.
New way of setting dot pan & vol (SHIFT).
Humanize pan too.

1.2.10 (02/05/98) Will loop the existing patterns if playlist empty instead of playing the first one.
Right clicking a channel mute button for 'solo'.
Loop comments are now in Rich Text format (RTF).
Warning message when no output driver selected.
Minor bugs corrected. Should be more stable. I hope.
Close DirectSound when loosing focus so most wave editors can run.
Added preview in the settings form.
Stretching to fit the pattern. Precalculated & rather slow.
CTRL key to adjust the volume of a whole line.
Note window has merged with the channel settings form.
More accurate wheel movement (right click).
Samples now support panning.

1.2.9 (19/04/98) Minor bug on the small volume wheel corrected.
Tried to 'attach' FastWAV to the main window.
Main window position saved & restored.
Keyboard keys to mute channels.
Scope mute button bitmap now loaded (skins).
Corrected another bug that made samples not to be found sometimes.
Added tips of the day. Hope they will be read :)

1.2.8 (15/04/98) Can now drop FLP files on the main window.
Bugs corrected in the saving of FLP files.
Humanize added.
Sync to input bug corrected.
MIDI/Samples menu option added.
Settings box shown when no output selected.

1.2.7 Channels volume/mute & main volume/shuffle now in the main window.
Loop settings menu removed.

(previous versions were MIDI only beta releases)